Other Works by Graham Wallas

OUR SOCIAL HERITAGE (*1921*)
THE LIFE OF FRANCIS PLACE (*First published 1898*)
(*George Allen & Unwin*)

THE ART OF THOUGHT (*1926*)
(*Jonathan Cape*)

THE GREAT SOCIETY (*1914*)
(*Macmillan*)

HUMAN NATURE IN POLITICS (*1908*)
(*Constable*)

Short Essays

WILLIAM JOHNSON FOX (*1924*)
(*George Allen & Unwin*)

PHYSICAL AND SOCIAL SCIENCE (*1930*)
Macmillan

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SOCIAL JUDGMENT

by

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EDITOR'S NOTE

WHEN my father died in August 1932 he had been working up to the last few weeks of his life at a book on Social Judgment. The chapters published in this volume would, if he had lived, have formed the first part of the book, and would have been followed by a second part of about the same length. All the material for the first part was left by the author in literary form and only needed to be revised for publication. In editing the manuscript I have tried to follow the method which he used in preparing his other books for the press, that is to say, I have verified quotations and statements of fact, and have consulted experts on the different subjects which are touched on in the book. In reading the manuscript I have thought that in one or two instances, notably in Chapter V, my father would, if he had lived, have abbreviated some of the quotations, and perhaps slightly altered the distribution and balance of the subject-matter. I decided that in nearly all such cases it was better for me to leave the text as it stood rather than to run the risk of distorting his argument.

The scheme of the whole work, if the projected second part had been written, would have followed the lines laid down by the author on p. 16 of this volume, where he writes: "In the first part of my book I shall be mainly concerned with the nature, history, and possible improvement of the judgment-process. . . . In the second part I shall discuss the institutions through which judgment influences social action." It appears from the notes and raw material which were among his papers that Part II would have opened with a long chapter on Government, dealing in the main with the problems and institutions of democratic government in the modern world, and that the later chapters would have included one on Private Property and one on International Organization. The eight chapters here published would, therefore, have formed the psychological and historical section of the book, and are "a discussion of the nature, history, and possible improvement of the judgment-process."

In the Preface to his *Art of Thought* (1926) my father pointed out the connection between the central problem of that book—"how far the knowledge accumulated by modern psychology can be made useful for the improvement of the thought-processes of a working thinker"—and similar discussions in his earlier works. "This book," he wrote, "is intended to be, not a summing-up of my earlier attempts, but an extension of my inquiry." I believe that he would have wished the following pages to be read as an extension of the wider inquiry to which his other books, from *Human Nature in Politics* onwards, and the work of his whole life were devoted—the problem how knowledge of the nature of individual man may be used for the general good of mankind.

I am deeply grateful for all the help which I have received from my father's friends in preparing this book. Without their expert advice, and their great kindness in giving valuable time to reading the manuscript, I could never have completed my task. I should like especially to record my debt of gratitude to Professor Elie Halévy, Dr. J. L. Hammond, Dr. John Hicks, Professor Harold Laski, Mr. Walter Lippmann, Dr. David Mitrany, Dr. Claude G. Montefiore, Professor Gilbert Murray, Dr. C. S. Myers, Mrs. Graham Rawson, Dr. Charles Singer, Professor Tawney, and Professor Alfred Zimmern.

MAY WALLAS

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SOCIAL JUDGMENT

CHAPTER ONE

PSYCHOLOGICAL FACTORS

EDMUND BURKE told his Bristol constituents in 1774, "Your representative owes you, not his industry only, but his judgment."

Since Burke spoke an enormous extension of the range and complexity of political society has made us all increasingly dependent on the judgment, not only of elected representatives in Parliament, but also of innumerable officials, from the diplomatist who prepares schemes for national security or world-peace to the traffic-policeman who has to prevent every hour a score of motor collisions. Outside the sphere of politics we are dependent on the judgment of the company directors who employ us, whose goods and services we buy, or in whose shares we invest; of the physicians and lawyers whom we consult; and of the writers and scientists and teachers who explore and describe to us the new world in which we live. And in 1932 we all recognize that the judgment of the statesmen and administrators and thinkers of our time has failed to protect modern civilization from political confusion, economic distress, and the growing threat of a war more dreadful than the last. Our distress is largely the result of the unco-ordinated growth of specialized science, but specialized scientists themselves are to a constantly increasing degree refusing to accept responsibility for the social results of their work or to give advice on social policy. The gap between knowledge and judgment is steadily widening.

It is with this situation in my mind that I propose to ask what the process which Burke called judgment is, how far it can be improved by conscious effort, and whether it is possible by better social and political organization to increase and direct its influence on corporate action. In the first part of my book I shall be mainly concerned with the nature, history, and possible improvement of the judgment-process, and its relation to the processes of scientific method and religious intuition. In the second part I shall discuss the institutions through which judgment influences social action; but a certain amount of over-lapping of the subject-matter of the two parts is inevitable, and I shall not attempt to avoid it.

I begin, therefore, by asking what the process of "judgment" is. A logical analysis might define it as a choice between imagined actions, which the person judging is either to perform himself or to advise or compel others to perform. And the same analysis might separate the choice itself into two processes, a "rational" or "scientific" calculation of the probable results of the imagined actions, and an emotional preference for one result rather than another.

But how far does such a logical separation correspond to a real separation in the psychological process by which men in fact arrive at responsible decisions? No simple answer to this question is, I believe, possible. In nine out of ten of their daily, more or less habitual, decisions men are not conscious of any distinction between rational calculation and emotional impulse. But ever since the beginning of recorded human experience men, when faced with some new problem of action, have noticed the appearance in themselves of two kinds of impulse pointing to different and inconsistent decisions. The one kind of impulse is in its simplest form an immediate and "primary" reaction of fear, sex-love, mother-love, anger, loyalty, etc., to some external stimulus which is directly perceived and whose significance is instinctively recognized. The other kind of impulse is much slower in appearing, has less immediate driving force, and normally follows after an interval of reflection or reasoning during which memories and inferences are combined and rearranged and new significances are discovered. This "secondary" kind of impulse may follow from or lead to the stimulation of one of the same instincts as its primary rival; but it has less driving force, and the original stimulation in passing through a series of imaginative associations is apt to lose its sense of vivid reality. Yet early proverbs, such as "look before you leap," indicate that our ancestors recognized that the weaker secondary impulse was generally a safer guide to action than the stronger primary impulse. When men distinguished in words between "mind" and "body," they were apt to ascribe the primary impulses to the "body" and the secondary to the "mind." Saint Paul may have been using language already traditional when he wrote of the "law in my members warring against the law of my mind" (Rom. vii. 23). When modern anatomists and physiologists began to examine and compare the nervous systems of man and other mammals, they related this recurring conflict between "reason" and "emotion" or "instinct" to differences in origin and structure between the more recently developed "neo-pallium" of the mammalian fore-brain on the one hand, and on the other the "sympathetic" nervous system and the more primitive parts of the lower brain. In 1922, for instance, Sir Charles Sherrington, in his address as President of the British Association, spoke of the "main seat of mind" as a "comparatively modern structure [the cortex of the forebrain] superposed on the non-mental and more ancient other nervous parts."[1] The work of C. Spearman, whose methods are psychological rather than physiological, seems to point also to the reality of a functional separation between the human emotional and rational systems. His ingenious mathematical analysis of the results of intelligence tests reveals the existence of a general (probably intellectual) factor which he calls "g," which can be tested in isolation from "emotional" endowments.[2] And in many cases his results show that too lively emotion interferes with the working of the intellectual process which he calls "cognition."[3]

Meanwhile, however, on the physiological side, recent work by Professor K. S. Lashley and others tends to show that the necessary localization of functions in different regions of the mammalian brain has been over-emphasized. Study also of the action of the "hormones"—the secretions discharged from the ductless glands into the bloodstream—indicates that their function in promoting or restraining nervous energy acts both in the cortical regions and in the more primitive parts of the nervous system. The influence of the hormones on the whole system interacts, as a factor in the process of judgment, with other normal or abnormal contents of the blood-stream—with the causes, for instance, which make us take "jaundiced" or "hectic" or "eupeptic" views of events. And the continuously conscious personality—that co-ordinating factor which laboratory psychologists find so baffling—influences every aspect and section of the conditions of judgment. Above all, it seems to be true that in a normal human being the stimulation either of the "rational" or of the "instinctive" and "emotional" section of our nervous system is likely to produce a stimulation, whether stronger or weaker, of the other section. The process of decision may, in any particular case, be mainly rational or mainly emotional, but emotion is likely to be accompanied by more or less conscious "reasoning" and reasoning by more or less conscious emotion.

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[1] *Presidential Address, British Association,* 1922, p. 9.

[2] C. Spearman, *Abilities of Man,* p. 197.

[3] Ibid., p. 105. "The preceding considerations seem to demonstrate that affection interferes with cognition."

In the present stage, therefore, of the discussion between experts, a layman like myself is probably justified in concluding that the old distinction between "reason" and "emotion" corresponds to a real but often over-simplified psychological truth, and that human judgment requires a successful co-operation, which is neither inevitable nor impossible, between two imperfectly co-ordinated psychological factors. As C. S. Myers said from the chair of the Psychological Section of the British Association in 1931, "Valuation and volition achieve their highest plane with the harmonious co-operation of the highest products of these two evolutionary paths—sentiment and intelligence."[1] The problem of judgment is, therefore, quantitative—one neither of absolute co-operation nor of absolute non-co-operation, but of more or less co-operation—though it would be tiresome always to state it in that form.

One may roughly divide the instances of co-operation between reason and emotion into those which are mainly "natural," i.e. which are mainly due to the inborn nature of the person deciding combined with his personal experience and memories and the habits resulting from them; and those which are mainly "artificial," i.e. due to the "social heritage" of education and discipline which has been handed down to him by preceding generations, and to his conscious efforts to act in accordance with that heritage. The more "natural" type of intellectual-emotional co-operation may be seen not only in the rapid and often half-conscious "intelligent behaviour" of our daily life, but also in prolonged periods of imaginative reverie. A stage in such a period of reverie among the anthropoids is indicated by Köhler's photograph of his clever young ape Sultan thoughtfully fitting two bamboos together.[1] The intellectual association-trains excited by the sight of the two bamboos inside his wired enclosure and the banana outside co-operated with his desire to eat, and produced, after an interval of reverie, an illuminating recognition of the "situation" (*Gestalt*) "Bamboos-banana," followed by the invention of a solution by fitting the smaller bamboo into the larger. We can observe or imagine another instance of the same prolonged "natural" emotional-intellectual co-operation in a young human mother who is watching her sleeping baby. Her whole being throbs with love for him, and her love co-operates automatically with a series of intellectual dream-pictures of his future. Just as a big-brained Aurignacian ancestress might see her son as a fisherman, or fighting man, or chief, so she sees hers as a naval officer, or a lawyer, or a doctor. Her mood, if she puts it into words, may lie half-way between "he will be a sailor" and "he shall be a sailor," and finally may merge itself into a more definitely intellectual calculation of practical plans. Even a modern social thinker, among all the difficulties of industrial civilization and the complexities of his own intellectual history, goes through periods in which his emotions and his reason co-operate and strengthen each other without friction and without effort. I lived for some years on the ridge of Highgate, in North London, and often walked alone, or with a friend or student, the mile and a half to Parliament Hill, from which, on a clear day, one sees London spreading southwards across the Thames Valley towards the heights of Blackheath and Epsom. One June evening I went there with Mr. Justice Brandeis, who had just arrived from New York. He looked for some minutes at London and loved its modestly planned houses and the touches of green that indicated the many open spaces. "Here," he said at last, "is a city for men and women to live in, and not for machines or giants." In each of us, as we looked, love for London flowed in one stream with the emotions which constitute the "public spirit" of a modern social reformer—pity and hope for those who live and will live in our crowded streets, the aesthetic sense of beauty, and the craftsman's preference for order and efficiency rather than confusion and waste. And as we talked on our way back to Highgate, our emotions co-operated with calculations of ways and means in the growth of a purpose to prevent, as far as we could, the great cities of his country and mine from being dehumanized.

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[1] *Psychological Section, British Association,* 1931, p. 190.

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[1] See W. Kohler, *The Mentality of Apes*, and Wallas, *Art of Thought*, Chap. I.

Throughout this book I shall deal in the main with "social" judgment, i.e. with the special kind of judgment-process which is stimulated by the presence or idea of our fellow-men, and contemplates social action. Man belongs to a partially "social" (or "gregarious") species, and a "social" stimulus acts on him differently from other stimuli. A man who finds himself on a crumbling cliff-ledge or in the pathway of a falling stone is "instinctively" afraid and "instinctively" stirred to calculation as to means of securing his personal safety. But in the presence of a screaming child, or a beautiful woman, or when he is a member of a group of hunters or fighters, his special social instincts of pity and love and loyalty and protectiveness, with the allied social instincts of jealousy and resentment, are stimulated. He then may feel an "unselfish" urge towards co-operative action. If that urge is logically analysed it can be divided into an intellectual assumption that his fellows are similar in important respects to himself, and that their feelings are similar to his own, combined with an emotional impulse to satisfy their desires and to recognize that their safety or happiness or "good" somehow "matters" to him, though such an analysis necessarily distorts any description of what is an essentially integrated process. Traditional "logic" comes nearer to descriptive truth when the original instinctive impulse is combined with a more definitely "selfish" calculation that his own good depends on the co-operation of his fellows.

A further characteristic of the human species is that these "social instincts" can be made active by other stimuli than the presence or idea of our fellow-men. We feel pity and affection for other animals such as dogs or horses, especially in their early youth. Primitive man, in addition to simple fear of a flooded river, or joy in the spring sunshine, feels quasi-social emotions of awe or affection towards a more or less anthropomorphic idea of the river or the sun. The history of religion is full of instances in which social emotions are directed towards a conception of the universe as a whole. And, as I have said, in a modern man like Mr. Brandeis the more general emotions of curiosity or beauty or cosmic feeling habitually co-operate with the more specifically social emotions of love and loyalty in the process of social judgment.

Experience of the social results of the emotional-intellectual co-ordination in reverie may have led our distant ancestors to recognize "wisdom" as a special human faculty valuable to the group as well as to the individual, and to give that faculty a name. We can guess, for instance, at a growing recognition that some men are born more wise than others. Such men would have from birth a greater range and delicacy of intellectual association than other men, a greater force and clearness in those emotions of sympathy and loyalty and courage which have special social importance, and greater ease in attaining that cooperation between reason and socially valuable emotion which I have called "Social Judgment."

We can understand why a primitive tribe felt it worth while to encourage a born "seer" to retire into the wilderness for periods of creative reverie, and why they brought him food during his retirement and asked his advice when he returned. If Einstein had lived a hundred thousand years ago he would perhaps have been dimly recognized as a "wise" man, as one in whom the perpetual conflict of thought and passion which weakened and bewildered other men did not take place. The *Times* reviewer of a little biography of Einstein, who must have known him personally, writes of "Einstein's remarkable homogeneity as man and thinker.... Einstein is all of a piece.... His social behaviour, his political views, his general interests, all seem to be the spontaneous manifestations of a profoundly integrated nature. There is no division in him."[1]

Sometimes the slowly acting processes of the born seer and the rapid practical decision of the born man of action are found in different individuals. Sometimes, both to-day and a hundred thousand years ago, they have been combined in one person. No man had more effective power of practical decision than the late Sir David Bruce, who spent himself in fighting against the insect-borne diseases of Africa, and that power was combined in him with a rare degree of creative intellectual-emotional imagination. Of him a friend wrote in an obituary notice in *Nature*: "His imagination kept him always one step ahead of his observations; his judgment told him where that step should lie; energy spurred him on, and the shrewdest common sense held him back from unsafe conclusions." And another friend in the same number speaks of his "indefinable intuition almost mystical in its working."[1]

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[1] *Times*, June 19, 1931.

Man must soon have noticed a difference in the type of natural judgment characteristic of different ages of life. Old age, with its subdued passions and long personal experience, was sometimes a safer guide than youth or middle age; and the "elders" must at times have been called on, as in Homer's description of the Shield of Achilles, to decide the angry disputes of early society.

But the long history of man's painful groping after security and happiness shows how precarious were even the most exceptional powers of natural judgment without the "social heritage" of accumulated and transmitted knowledge and inventions and ideals. One can imagine a primitive Sir David Bruce, with his iron muscles and "mystic" intuition but with little traditional knowledge, leading, by general consent, a group of his fellows through fifty years of gathering the fruit and grubs whose significance for their needs they instinctively recognized; and a score of primitive Einsteins without much help from the past may have noticed and foreseen and rejoiced in the recurring signs of spring plenty in forest or lagoon.

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[1] *Nature*, January 16, 1932.

But most of these primitive discoveries of causes and effects must have died with the inventors or their children. And even in tribes unusually fertile of invention, among whom customs were being slowly established which made more easy the transmission of knowledge from generation to generation, men's "social heritage" was never secure against destruction by the extermination or enslavement or impoverishment of a single generation. A few tall skeletons with ample brain cases, a few hundred exquisitely wrought flints, and the cave-drawings which our artists can now admire but cannot imitate, are all that is left of those Paleolithic peoples who, by the help of a genius greater than ours, had accumulated artistic traditions, some of which we are now painfully trying to reconstruct.

CHAPTER TWO

JUDGMENT AND KNOWLEDGE

THE "social heritage" which each generation of mankind hands down to its successors may be roughly divided into knowledge to be learnt and ideals or patterns of behaviour (whether "external" and muscular, or "internal" and intellectual or emotional) to be imitated.

In this chapter I shall deal with our heritage of knowledge as one of the necessary conditions of modern social judgment.

There is now no immediate danger, as there must have been during many millennia of human pre-history, that the accumulated knowledge of mankind will be lost by the extermination of the tribes in whose memory it is stored. Our knowledge is preserved in thousands of libraries throughout the civilized world, and studied in scores of thousands of schools and colleges. Our present danger is rather that knowledge may be growing too vast for successful use in social judgment by human beings whose lives are as short as ours and whose intellects and sympathies are so limited.

If one takes down a few learned journals from the open shelves of the British Museum Library one realizes that every year's work by the chemists and physicists and biologists and historians and archaeologists of the world now adds more knowledge to the social heritage of mankind than the whole body of that heritage in the days of Aristotle. And in every decade the rate of accumulation is increasing rapidly.

We attempt, by an elaborate system of subdivision of intellectual labour, to overcome the difficulties arising from the growth of human knowledge and the fixity of human powers. No one now tries to master even a thousandth part of existing science and history. But the function of social judgment is the guidance of human action; and the effects of action ignore the artificial frontiers which we have erected between the provinces of knowledge.[1]

In the second part of this book I shall discuss some of the various imperfect institutions by which the possessors of different kinds of knowledge are enabled to help each other to form corporate decisions for which they all share responsibility. Nineteen-twentieths of our corporate decisions are now produced in that way and must continue to be so produced. But in a world like the present, when new decisions are daily required to deal immediately with new dangers, this process is increasingly inadequate. Someone must always, at each crisis, be ready to propose a policy for all the effects of which he is willing to be responsible. And many of the major disasters of our time have resulted from the fact that an expert in a single field of knowledge, a military strategist and historian like Foch, a naval strategist like Tirpitz, a newspaper financier like Northcliffe or Beaverbrook, has found himself in a position to initiate and carry through a national or international policy.

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[1] See Wallas, *Our Social Heritage*, Chaps. I and VI.

A wise statesman, under modern conditions, may start life as an engineer or an ironmaster, but if he is successful in directing the policy of his country it will be because experience of affairs combined with much deliberate study has given him a body of knowledge of which his original expertise is only a fraction. The man who as statesman or writer, or even as teacher, offers his judgment on policy to his fellows, may prepare himself to plan by learning facts from others; but at the moment of Illumination,[1] when the plan first forms itself in his mind, or when a suggestion from a colleague first presents itself as a solution of his problem, he must trust to that knowledge which he has made his own.

Since the date of Burke's Bristol speech, therefore, the accumulation of knowledge has imposed a new duty of intellectual economy on those who desire to prepare themselves for the task of social judgment. During their preparation they must economize both time and effort, and their economy must be guided not merely by a personal interest in this or that group of facts, but by an estimate, however rough and provisional, of the comparative relevance to their work of many competing fields of knowledge.

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[1] See Wallas, *Art of Thought*, Chap. IV.

The social thinker must face the risk that his own estimate of relevance, however carefully made, may be mistaken. A thousand years hence, when he himself is forgotten, men may be commemorating some scientist of his time who, guided by a curiosity which paid no heed to calculations of social results, created a new basis of social action, or some philosopher of whom he never heard who then started a revolution in social motive. He ought, therefore, always to be on the watch for indications that new discoveries or new movements of thought have put his estimate of relevance out of date. But if he has accepted the task of social judgment he must not refuse the conditions of success in that task. One of those conditions is a right choice of the knowledge which he shall acquire; and choice involves economy.

Anyone, however, who now asks himself what fields of knowledge seem to him most relevant to our present problems will realize the difficulty as well as the necessity of such an economy, and of the estimates of proportionate relevance on which it must be based. It may, for instance, be argued that the only permanently effective way of increasing the control of judgment over human life is to increase, by genetic study and experiment and eugenic policy, the innate efficiency of the human mind, and that the present generation should prepare to think of itself primarily as the temporary custodian of that breeding-stock which it will hand on strengthened or weakened to unnumbered succeeding generations. But this attitude may involve the postponement of that scientific and political education of our contemporaries and their children on which the possibility of an effective eugenic policy may depend.

No modern statesman should, of course, forget the biological results of any legislation which he proposes, or be ignorant of the main biological conditions of eugenic progress; and no State should neglect the organization of biological research. But the biologists themselves insist both on the extreme slowness, in the present state of our knowledge, of any serious improvement in the human stock, and on the hitherto unexpected plasticity of the human individual from the moment of conception.

We do not yet know how to produce, in the course of twenty generations, any large change in the average biologically inherited eyesight or digestion or memory of a race. But the Russians are now showing how rapidly the leaders of a single generation, if they are sufficiently convinced and unanimous and powerful, can change, for good or ill, the political and religious traditions and much of what we call the "national character" of a modern community. And not only must biological change be slow, but the invention and application of means of bringing it about will require extensive cultural changes, during the long period in which the biological type of the community remains practically unchanged.

But a student-statesman who, while realizing the ultimate importance of biological change, has decided to concentrate his main attention on those social changes on which both biological and social progress depend, has still a further choice to make. He may take as his main subject of study either knowledge of the psychological and physical conditions of all cultural change, or knowledge of the particular culture which he desires to change. A modern physiologist, for instance, who desires to help in changing the food-habits of mankind may treat man's existing food-habits and the ideas on which these habits are based, as comparatively unimportant. He, and those who come to him to be trained, may go straight to what they believe to be the most accurate conclusions of modern physiology in regard to the human organism. From these conclusions they will deduce their own proposals for an optimum diet, and leave those proposals to be tested by future observation and experiment.

Many of the books which have most deeply influenced the political, economic, and religious heritage of the world have been of this kind. Plato's *Republic*, Spinoza's *Ethic*, the *Summa* of Aquinas, More's *Utopia*, Bentham's *Principles of Morals and Legislation*, though they may contain incidental criticism of statements by other thinkers, yet owe much of their driving force to the fact that they, like Euclid's *Elements* or Newton's *Principia*, consist almost entirely of direct deductions from what their authors believed to be the permanent factors of their problems.

If the social sciences are not to be suffocated by their own accumulated knowledge, such books are still needed; and even those social thinkers who do not attempt to write them should, I believe, train themselves to break from time to time with existing traditions of study. They should be able to look at the problems of diplomacy and war and industry and monarchy and religion and parliamentary representation with the same fresh attack as that with which Plato looked at problems of democracy, or H. G. Wells the other day, in his *Work, Wealth and Happiness of Mankind*, looked at the architectural problems of a modern parliament house.

But if plans for producing cultural change are to be wisely formed and carried through without violence, they must, I believe, be based on a study not only of the permanent conditions of change, but also of the facts of existing mental and emotional habits. That study, again, may take two different forms which, though not mutually exclusive, yet represent the two different training policies which I may distinguish as "horizontal" and "vertical" (or "historical"). A "horizontal" student, like the late Mr. Charles Booth in his London inquiry of 1889–1903, will aim at making a cross-section at a given moment of time of the habits, the knowledge, the religions, and the conscious or unconscious assumptions and ideals which prevail among the inhabitants of a given region. Excellent work of that kind is being done, not only by professed social observers and anthropologists, but by modern regional novelists. And those European States which possess tropical dependencies are already beginning to require from the officials whom they send abroad some "horizontal" knowledge of the social heritage of the tribes whom they will govern. Such knowledge is more necessary for those who wish to govern by persuasion than for those who rely on force. The Khalif Omar could afford to be ignorant of the beliefs and habits of his subjects; the governor of an African mandated territory cannot. Stalin at

Moscow or Kemal Pasha at Angora can take the risk of ignoring the existing culture of Russian or Turkish villagers nearly as boldly as a surgeon ignores the ideas about the circulation of the blood held by the patient who lies on his operating-table. But an Anglo-Indian health officer who has to persuade a Bengal native to submit to an operation cannot ignore his religion or caste. A British or American Socialist politician finds more difficulty in transplanting Bolshevist phrases and assumptions into a democratic society than Stalin has found in transplanting into a non-democratic society the phrases and assumptions of American "Fordism" and German Marxism. And the native Hindoo or Mohammedan or agnostic statesmen who will soon, it seems, be governing India, will be wise to make a more serious effort than we have made to understand the minds of men and women who have inherited different traditions from their own.

But what, for our generation, is the comparative value of a "horizontal" study of men's existing social heritage and a "vertical" study of the history of that heritage? A certain degree of "verticality" is both indispensable and inevitable. A social thinker in the twentieth century must, like a twentieth-century physicist, substitute the conception of a "time-space event" for the nineteenth-century conception of a "fact," even when language compels him to use the earlier term. While a "fact" is being written down it is already part of an "event" which is moving in one direction or another. The excellence of Charles Booth's *Life and Labour of the People in London* (1889–1903) as a contemporary record of facts constitutes its excellence when continued nearly thirty years later by Sir Hubert Llewellyn Smith as a chapter in that prolonged event which is the social history of London.

But there is no more difficult problem either for individual social thinkers, or for those who plan the work of schools and universities, than the use that should be made of a knowledge of history in the formation of present policy. The number of facts in the past history of mankind is of course infinite, and every one of them, if accurately substantiated, is of potential importance. The possibilities and values of human life may be changed to some extent to-morrow by the discovery of a tertiary skull in Central Asia; a fragment of painted pottery in the foundations of Rome; a sheet of papyrus in the tomb of a Christian convert at Antioch; the forgery of a clause in a medieval treaty; or a receipt for money signed by one of those concerned with the negotiations which preceded the Great War. It is good that such facts should be sought for and verified by thousands of archaeologists whose guide is a passion for truth rather than for practical wisdom. But the social thinker himself, in studying past history, as in studying present facts, must economize time and effort. He may, during a period of student research, learn to appreciate the method of the first-hand historian and the character of his material. But in the main he must trust for his historical knowledge to historians who have already turned facts into events, and have selected those events which seem to them most significant. His problem will be to choose the right historians and the right "problem-attitude" in which he himself will read their books. About a hundred and twenty years ago, for instance, the great German historians from Niebuhr onwards, began the enormous task of substituting the results of a critical examination of contemporary evidence for the mythical and literary tradition of the academic history-teaching of their time. Their work has profoundly altered the whole intellectual and emotional background of European thought. Yet the practical conclusions which in the nineteenth century the "historical school" of Prussian lawyer-statesmen drew from the new science of history, have proved, like Hegel's *Philosophy of History*, to be founded upon dangerously unreal generalizations. In the twentieth century most historians and statesmen would agree that the more thorough the methods of history become, the less easy is it to base modern social plans upon historical instances. As the world of Greece and Rome has been reconstructed with ever-increasing accuracy by scientific historians, the vision of a heroic Utopia which Plutarch's *Lives* brought to the statesmen of the French Revolution has become more and more remote.

And yet a modern social thinker should look to history to help in forming not only a half-conscious emotional background for his thought, but also his more conscious working conceptions of the biological as well as the social heritage of mankind. The dividing line, often quantitative rather than qualitative, between what is innate and what is acquired in the higher forms of human intellectual and emotional activity, is still a matter of acute controversy among psychologists. Have we, for instance, anything that can be called a "social instinct" or a "political instinct" or a "religious instinct"? And if so, what are its limits? Such psychological points cannot be settled merely by modern "brass-instrument" laboratory experiments, unless an almost inconceivable improvement takes place in laboratory procedure. The best available evidence is often the fact that men like ourselves have in the past, perhaps in the distant past, thought or felt or acted in such and such a way. That fact is at least evidence that men can so behave, though it is too frequently represented by the apologists of established religious and economic principles as sufficient evidence for the conclusion that they must always so behave.

The chief function, again, of modern social thought is the invention and formulation of new social expedients for dealing with new situations; and though the expedients which were used or suggested in the past will never exactly fit the present, the social thinker may find that knowledge of them helps to start him on the path of invention. And one of the most important services which history and the new science of pre-history can render to the social thought of our time will be the creation of a nearer approach to agreement among serious thinkers as to the historical origins of the words which we use in our social discussions and the ideas which underlie them. The followers of Christianity or Islam, of "patriotism" or "natural rights" or political liberty, may each believe, rightly or wrongly, that his creed and principle is the necessary conclusion of thought about the universe. But the first appearance of each idea was accompanied, if not caused, by certain events in time and space. And if by patient research and tolerant discussion we come nearer agreement as to what the events were, we may find ourselves nearer agreement as to the validity of the ideas.

During the last fifty years the critical study of documents, the spade-work of archaeologists, the courage and insight of anthropological field-workers, have revolutionized cultural history. An inexpert student of history like myself is, therefore, often tempted to leave to the experts the responsibility of interpreting this new knowledge. But he cannot use that knowledge in his own thinking until he has formed his own estimate of its significance, and his readers cannot criticize his estimate unless he indicates to them his view of still disputed questions of historical fact.

CHAPTER THREE

THE ART OF JUDGMENT

In the two preceding chapters I first discussed the rational-emotional process of judgment as a "natural" activity, and then discussed the body of acquired knowledge of which judgment must make use. In this chapter I shall begin the discussion of judgment (or "wisdom") as an "artificial" activity, that is to say as an acquired "pattern" or "art" of human behaviour handed down for imitation from one generation to another.

The possible existence of such an art depends, of course, on the preliminary question whether human beings can by self-conscious effort increase the social efficiency of the "natural" judgment-process. Reasoning, taken by itself, can undoubtedly be artificially improved. Men, as I argued in my *Art of Thought* (1926), can by an effort of will "think out" a situation. They can hold their attention on it; make themselves conscious of steps in the process of reasoning of which they would otherwise be unaware; and direct and verify their inferences by artificial rules of logic or science. Feeling, taken by itself, is at present much less under our voluntary control than reasoning. It is much more difficult for us by an effort of will to "feel out" than to "think out" a situation.

Though particular religious and educational expedients for the strengthening and direction of emotion exist, there is as yet no generally accepted "art of feeling." And future historians of the twentieth century may notice, as one of the characteristics of our time, a temporarily increasing confusion as to the possibility and method of any art of directing the combination of thought and emotion in judgment. We know that emotion may be increased by a clear, rational conviction that causes will have results, and that reasoning may be enriched by emotion, but we have not yet learnt how to use that knowledge.

We in Europe and America owe the first conception of the possibility of such an art of judgment to a few thinkers in the trading-cities of Ancient Greece. Cicero, when after the fall of Greek power he was considering the possibility of a consciously directed civilization within the rising Roman Empire, said: "The mother of all good things is the wisdom (*σοφία*) from the love of which philosophy received its Greek name."[1]

The Greeks themselves believed that they obtained the beginning of their civilization from Egypt. But "the wisdom of the Egyptians," as preserved for us in their tomb-paintings and papyrus-rolls, was something profoundly different from the "philosophy" of Greece.

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[1] *Laws*, I, 22, 58.

A modern thinker, when he reads the Greek philosophers, finds himself at home, and often in a brighter and clearer mental atmosphere than that in which he now lives. If he tries to reconstruct the thought of Ancient Egypt, he must go to the description by anthropologists of the rapidly disappearing remnants of primitive mentality in Africa or Central Australia.

In the wisdom of Ancient Egypt there is no distinction between medicine and magic or between instinctive terror and a reasoned sense of the significance of the universe. Neither science nor ethics yet exists as a conscious system, and isolated bits of physical information are mingled with isolated instances of righteous or sinful conduct. Close behind the elaborate mythologies lies the tradition of the strange "fertility cults" which darkened the life of mankind for perhaps three-quarters of their history as a self-conscious race. The early tillers of the ground (developing, perhaps, a still earlier tradition from the first herdsmen) had come to believe that the annual supply of food for the tribe depended on the vigorous life of a man who, if one is to put vague imagination into logical form, was a god and also the tribe, and also the growing crop. If he were killed while still vigorous, and if his flesh were scattered in the fields or eaten by the tribe, his vigour would pass into the crops or the tribe.

During many millennia such ideas, and the rites which followed from them, were combined in Egypt with the worship of gods who were not men, and with a growing belief that the souls of individual men could be continued in vigour after death by food offered at their graves and by the ministrations of servants who were killed and buried with them. Meanwhile non-mythological pictures on the walls of Egyptian temples and tombs testify that in the richest valley of the world, hundreds of thousands of men, possessed of constantly growing technical skill, spent lives of incredible toil in preserving the embalmed bodies of kings and sacred animals, and in providing for the appetites of imagined ghosts. The annual inundations of their river had indeed given to the inhabitants of Egypt that which twentieth-century machine industry has just given to the inhabitants of Europe and America—the opportunity, open to a whole people, of living for some other purpose than the bare maintenance of life. Their use of that opportunity was directed by an able, endowed, and carefully trained class of priests. And to the pyramid-building serfs, and perhaps to many devout and self-torturing young priests and priestesses, the wisdom of Egypt brought no better way of living than that of their distant ancestors, who learnt from their fathers nothing but a few tricks of food-gathering and stone-chipping.

Yet the papyrus-rolls and tomb-pictures show also that underneath the dominant mythology and priestcraft of Egypt certain traditions were being formed which, when they afterwards spread to Greece, were to make possible both science independent of magic, and ethics taught by philosophers rather than priests.

The master builders who drew the delicately accurate lines of Egyptian temples and pyramids, and the land-surveyors who remeasured after each inundation the fields that paid dues to Ammon, created an empirical geometry which constantly came nearer to a mathematical science, and which was increasingly applied both in Egypt and in Mesopotamia to calculations of the movements of the stars and of the recurrence of the seasons. In the medical papyri physicians added records of the observed symptoms of disease, and remedies founded on experience, to the ancient lists of magical spells. Akhenaton's short and premature effort proved that it was already possible in the fourteenth century B.C. for a reforming king to found a new religion upon his first-hand gratitude to the visible, life-giving sun. A few collections of proverbs and often-copied romances like *The Two Brothers* or *The Eloquent Peasant* show that the ancient Egyptians were writing about those problems of personal and neighbourly conduct which the villagers discussed when their work for the temple tribute and royal taxes was done, and the prayers to the gods of fertility had been said.[1] And the scribes who composed or copied the Books of the Dead, which were to be buried with rich men, were already in the second millennium B.C. drawing up lists of good and bad actions so long that at any moment they might suggest the need of rational classification. But the empirical ethics of Egypt under the Pharaohs, like the empirical medicine of their physicians and the empirical geometry of their architects and astronomers, always stopped short of philosophy.

In the seventh century B.C. the creative centre of Western civilization was moving from Egypt to the Ægean, where Greek technical improvements in Semitic alphabetic writing were superseding the clumsy symbols of Egyptian hieroglyphics and Babylonian cuneiform. In the fifth and fourth centuries B.C. it was possible for Greek thinkers to compose treatises which expressed the whole mind of their writers, and which could be passed in easily-read copies from hand to hand and generation to generation.

I shall not try even to summarize the manysided contributions of the Greeks to science and art and logic and metaphysics. I am here concerned with their contribution to the conception of a method of "caring for their souls" by which men could attain good judgment in the guidance of their own lives and the lives of those who trusted them.

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[1] See T. E. Peet, *A Comparative Study of the Literatures of Egypt, Palestine and Mesopotamia* (1931).

Greek moral philosophy was a plant of astonishingly rapid growth, but it did not suddenly appear as a complete system, aiming by clearly conceived means at clearly imagined ends. In Greece, during the great century which followed the battle of Marathon (490 B.C.), the creation of new patterns of human life preceded the process of organizing those patterns into a consciously formulated philosophy of conduct. Plato must have written his first dialogue less than a century after the battle of Marathon, and his first disciples were already familiar with the patterns of courage and justice and mercy in the stage-characters of Prometheus or Antigone or Alcestis, of civic energy in the Funeral Speech of Pericles, and of noble personal conduct in the lives of Pericles, Aristides, and Socrates. Before Plato in the *Hippias Major* attempted to analyse the idea of beauty, his readers and their fathers had watched, on the Acropolis and in the shops of the vase-painters, the making of new patterns of beautiful things. And part of the first creative energy of

Athenian culture was due to the fact that its makers were already aware that they were inventing new patterns not only for themselves but also for the world. Thucydides, writing when Plato was a boy, makes his Pericles say, "Our polity is not copied from our neighbours; we are an example to them rather than they to us."[1]

Physical and logical speculation also preceded in the Greek cities during the sixth and fifth centuries B.C. the systematic moral philosophy of the fourth century; and the imagination of the poets and artists and statesmen of the Periclean generation was stimulated and coloured by the ideas and methods of the "Presocratic" Ionian thinkers. Pericles and Euripides and Pheidias, and perhaps Socrates himself as a young man, were disciples of Anaxagoras, the physicist of Clazomenae. But Cicero was right when he dated the characteristic Greek contribution to the art of wise judgment from the moment when Socrates "called down philosophy from heaven"—from the cosmic speculations of Pythagoras and the Ionian physicists—to the "cities of men" and the problems of human conduct. And men's knowledge of Socrates' thought after his death was first made possible when Plato asked, in unforgettable literary form, nearly all the questions which our social thinkers are asking to-day.

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[1] See A. E. Zimmern, *The Greek Commonwealth*, pp. 200, 201.

Plato, in his *Republic*, seeks to discover how men can escape from the seditions and wars which were already destroying the glorious promise of Hellenic culture, and from the confusion of mind and motive which made social confusion inevitable. He answers that men can only secure individual satisfaction and social peace by methodical effort. In the *Republic* he explains that the purpose of that effort should be to secure the harmony of reason and passion which he calls "justice," and which I have tried to describe as a necessary condition of successful judgment. Plato's account of the means of securing harmony in the soul is in some points nearer to the psychology of the twentieth than to that of the nineteenth century. Scientists, as I have said above, are now beginning to recognize the "hormic" physiological forces as energizing the processes both of associative thought and of the emotions. Plato classifies the same facts by distinguishing between the "rational" principle, the "spirited" (i.e. hormic) principle (which he identifies with anger and which gives power to the decisions of the reason), and the bodily passions, which the reason with the help of the "spirited principle" can control, just as in his imaginary Republic the magistrates, who are the "reason" of the State, govern with the help of the soldiers who are its executive force. "Is it not . . .," he asks, "the province of the rational principle to command, inasmuch as it is wise and has to exercise forethought on behalf of the whole soul, and the province of the spirited principle to be its subject and ally?" And he adds a plea, which educators may understand more clearly fifty years hence than they do now, for the cultivation of aesthetic and muscular feelings as a means of harmonizing the whole personality of his Guardians. In words intended to suggest the action of a lyre-player tuning his instrument, he asks, "Will not the combination of music [literature and all forms of art] and gymnastic bring them [the rational and spirited principles] into unison; tightening and strengthening the one string by noble words and scientific teaching, and loosening, soothing, and taming the other by harmony and rhythm."[1]

Plato was an aristocrat, a poet, and a mathematician. He relied for the creation and direction of his new Republic on the absolute rule of a small sternly disciplined class. To him "reason" meant that sudden vision of universal meaning which comes to a thinker whose feeling of cosmic awe is both heightened and "rationalized" by a trained logic. For all those who had received that vision, knowledge and virtue were the same thing; and no one whose soul had been irradiated by the idea of the good would fail to seek the good in action.

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[1] *Republic*, Book IV, 441–442.

Plato's pupil Aristotle was a trained biologist and a careful student of contemporary forms of government. In his *Ethics* and *Politics* he tried to lay the foundation of a State in which every citizen should both command and obey. He, like Plato, had experience of that mystic contemplation which he believed to be the noblest activity of man's life. But he relied, as the motive-force of his polity, not on the absolute rule of a group of illuminated dictators whom the rest obeyed as the servant obeys his master or the soldier his officer, but on the formation by every thoughtful citizen of a habit of deliberate moral choice.

For the production of that habit he relied on the education both of thought and of feeling. And instead of integrating all feeling in the philosopher's vision of the absolute good, he dwelt on the special importance of the social instincts and in particular of the "affection" (φιλία) felt for the State by its members.[1]

The successors of Plato and Aristotle differed among themselves on many points of ethics and metaphysics. But they kept alive in the Graeco-Roman world the tradition of philosophy as a conscious art of wisdom accessible to all who were able and willing to practise it, and offering guidance both to individuals and to States.

The Roman Empire under Augustus and

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[1] Cf. Wallas, *Human Nature in Politics*, Part I, Chap. I.

Trajan and Marcus Aurelius secured some measure of peace and even contentment among the varied races and religions from Spain to the Euphrates. And it did so in spite of clumsy finance, occasional cruelty, popular ignorance, and some personal corruption, largely because among its rulers there were men who, whether emperors like Trajan and Marcus Aurelius, or officials like Pliny the Younger, thought of themselves as servants of Philosophy, and bound in her service to exercise judgment whether on the bench or in the administrator's office or the general's tent.

And Greek philosophy continued as a living tradition until Boethius, while waiting for death in the prison of a Christianized barbarian emperor of the West, wrote in A.D. 525 its epitaph in his *Consolation of Philosophy*; and Justinian, as Eastern emperor, closed in A.D. 529 the Athenian lecture halls.

To us who are now watching the spread of our "scientific" culture throughout the Eurasian continent, the causes of the ultimate failure of the Greek philosophy to establish itself in Mediterranean Europe are as important as the causes of its immediate success. Certain of these causes are obvious enough. The Greeks never secured the free cities, which were the seed-bed of the Greek creative imagination, from external invasion or internal decay. They never established for more than a few years any self-governing political unit larger than a city-state. They never learnt to control the death-rate in their walled harbour towns, or so to direct sex customs and marriage as to secure racial progress or even continuity; and they never invented an effective substitute for slavery as a basis of organized industry.

But even if we can see why the creative energy of Greek thought died out in its original home, there remains the question of the comparative failure of Greek moral philosophy to establish itself, after the first successes, in the new social environment created by the Roman Empire. A complete discussion of that problem would require an analysis, which as far as I know has never yet been made, of the general conditions of success and failure in culture-diffusion. Such an analysis would, I believe, show how much easier it is to diffuse beyond its place of origin the visible results of an invention, whether a work of art, or a machine, or a political institution, than the psychological processes by which inventions come to be made. And among psychological processes forms of intellectual calculation are more easily diffused than forms of feeling, or than the intellectual-emotional harmony which constitutes "wisdom" or "judgment" in social conduct or "creativeness" in art. One may indeed arrange the elements of any new culture in order of their diffusibility. The most diffusible are apparently those mechanical expedients, the arch, for example, or the potter's wheel, which are easy to make, repair, and use, and which produce immediate economic advantages. The next most diffusible are the scientific expedients, the steam-engine, the electro-motor, the microscope and test-tube which give immediate economic advantages but require trained and severe thought for their manufacture and use. The Japanese after 1868 and the Russians under Stalin have shown how easily, under modern conditions, such expedients can be diffused from their place of origin, and how rapidly among a people of strong natural intelligence they can stimulate the passion of scientific curiosity and devotion. Now that Japanese moral philosophy is apparently failing to contribute to the wise direction of world policy, it is good to remember how Noguchi gave his life fighting to save the peoples of America and Africa from yellow fever.

Much less easily transferable are those kinds of art and literature which require a developed aesthetic sense both for their creation and appreciation. And indeed those who desire to help in the diffusion of the idea of social judgment would do well to study the process of aesthetic diffusion. One can watch, for instance, the well-known steps by which the Greek literary tradition was adopted by the Romans. Greek literature first appealed to those Latin writers in whom it directly stimulated the Greek "spirit," and who, in consequence, not only imitated Greek prosody and used Greek similes, but acquired, they knew not how, a similar creative impulse.

Catullus and Lucretius were both in a sense imitative writers. Catullus boasted that he was a translator of Callimachus; Lucretius gloried in his debt to Epicurus, the "Grecian man" who had shown mankind the way to truth. Catullus and Lucretius, because they had caught the Greek spirit, wrote with Greek freshness of word and image and Greek "first-handedness" of thought. But meanwhile the patient scholars in the "Museum" at Alexandria had been producing less inspired Greek copies of the Greek epic form, and Virgil, though he borrowed much from Homer and brought to his work a new passion of his own for the idea of empire, yet borrowed perhaps even more from the *Argonautica* of Apollonius of Rhodes.

Then came two thousand years of literary copies of copies, ending in the pseudo-Ovidian Latin elegiacs, which I was compelled to write from the age of nine to nineteen. The beauty, again, of the Greek sculptures stimulated at first the authentic impulses of some Persian and Scythian craftsmen; but one can watch in the British Museum the soulless repetition of it spoiling the native art of the Punjab, and the wonderful portrait-heads of Greek coinage becoming the unintelligible hieroglyphs of early British mints.

This degradation of an aesthetic "pattern" by the loss of its "spirit" in the successive stages of copying has been lessened in the modern world by the invention of printing and by our new skill in preserving and reproducing works of art. But the fact remains that aesthetic diffusion has always been and still is much less successful than the diffusion of applied science, and that fact is partly due to the greater success of the scientist, from the time of Archimedes onwards, in explaining his creative methods. Plato was deeply interested in the problem of aesthetic creation, but could only describe it as a kind of "madness"[1] whose methods, because they were subconscious and perhaps supernatural, he could neither describe nor explain. Pythagoras, when he invented the proof of the relation of the hypotenuse to the sides of a right-angled triangle, or Archimedes when he discovered how to measure specific gravity, could not have given a psychological account of his creative process. But he could give a logical account of it, and a born scientist in any part of the world would find that that account stimulated his own scientific imagination.

[1] Cf. Wallas, *Art of Thought*, Chap. II.

Aristotle's little treatise on the Art of Poetry fixed from the age of Seneca to that of Corneille the accepted form of European drama. But it prevented rather than stimulated the creation of such plays as those which made the importance of the Greek dramatists to the world; and it did so because it is a logical account of the conditions on which the effect of drama depends rather than a psychological account of the process by which great drama is created.

Aristotle had sat on the benches of the Dionysiac theatre at Athens, and must himself have felt the emotions of "pity and terror" which swept along the vast semicircle during a performance of *Oedipus the King*. He gives a number of intelligent structural rules, coherence of plot, climax of incident, consistency of character, dignity of style, by which the emotion of an audience can be intensified. But he gives no indication, such as Shelley gives in his *Defence of Poetry*,[1] that he is interested in the emotional-intellectual process of poetic creation. And Shakespeare, who knew little Latin and no Greek, was more Greek in his creative processes than Dryden or Corneille.

It may therefore be that in the future progress of aesthetic diffusion, that which one nation or artist will learn from another will rather be ways of producing a Platonic harmony of the soul than external artistic forms. The architectural correspondent of the *Observer* may have indicated the future method of aesthetic diffusion in an article on October 5, 1930, describing an office building in High Holborn as an illustration of "the new architecture which is spreading across Europe." Nothing could be more different than this article from the treatise on "architectonics" which Aristotle might have written in continuation of his *Poetics*. After describing the "logical" arrangements by which as much light as possible is brought into the centre of the building, the writer of the article goes on: "Yet there is nothing stark or soulless about this building. It has a warmth and liveliness as soon as one realizes its human purpose. By reasoning one may prove that it is logical, and if that is not enough, then by some inner apprehension one may be conscious of the living thought which has gone into its creation. There is in its proportion just that fine agreement between beauty and necessity, which comes as much from artistic insight as from reason, and which brings about that unity called art."

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[1] Cf. Wallas, *Art of Thought*, Chap. V.

For two hundred years the patterns of government created in England during the seventeenth century and elaborated in eighteenth-century France have been diffused throughout the rest of the world. South American republicans and students and statesmen in China and Japan have learnt by heart examination answers on the "principles" of "representative government" or "judicial independence" or "executive responsibility." But few of them have learnt the obscure processes of human motive which alone have made it possible to work those institutions and principles in the countries of their origin. And unless we can make those processes clear to ourselves, we may have lost the secret of their value before we cease exporting their forms.

And so those of us who desire to help in analysing and diffusing the method of that social judgment which the spread and intensification of our industrial civilization is making every day more necessary throughout the world, may learn from the *Observer*'s architectural correspondent. A future teacher of political science may have to begin by proving the "logical" proposition that social judgment in the Great Society is as urgently needed as light in an office building. But he may also have to attempt to acquire and diffuse, by an intellectual-emotional process of imagination, an "inner apprehension" of the "living thought" which must "go into" the successful creation and direction of political institutions.

CHAPTER FOUR

THE WISDOM OF PALESTINE

In the last chapter I argued that the failure of Greek philosophy to establish itself as a guide to the exercise of social judgment in Mediterranean Europe was partly due to those defects of Greek social organization which destroyed the original seed-bed of Greek culture, and partly to the difficulty of diffusing without loss of vitality any new cultural pattern more complex than a mechanical invention. In this chapter I shall argue that that failure was also due to certain weaknesses in Greek philosophy itself which were revealed as it came in contact with other traditions, and which are shared by many of the philosophies which have succeeded it. The first of these weaknesses is well illustrated by Plato's own mental history. Plato knew by experience the feeling of clear vision which comes to an emancipated philosopher who has left the shadowy cave of the phenomenal world and contemplates the supersensual nature and purpose of the universe. And he also knew by experience the feeling of confusion which comes to the same philosopher when he is asked, as Plato was asked by Dionysius, the dictator of Syracuse, for practical advice. "Do you think it a marvellous thing," asks Plato in the *Republic*, "that a person who has just quitted the contemplation of divine objects for the study of human infirmities, should betray awkwardness, and appear very ridiculous, when with his sight still dazed, and before he has become sufficiently habituated to the darkness that reigns around, he finds himself compelled to contend in courts of law or elsewhere, about the shadows of justice . . .?"[1] When he wrote the *Republic*, Plato hoped that this difficulty could be overcome by the rigorous intellectual and moral training of his governing group, so that, even in the twilight of the cave, they could see without illusion the meaning of the shadows around them. In the *Laws*, written in his old age, and after his failure as tutor and political adviser at Syracuse, Plato was less confident. He had found that philosophers, when required to exercise practical judgment, must, like chimpanzees, fall back on the tentative process of expectant thought, however much that process might be aided by experience and science and logic. He had learned too that even the ablest philosophers could not agree in their interpretation of the shadows, and that the rest of mankind was fatally slow to accept that kingship of the wise which was the basis of his whole political scheme.

But there always remained, at Delphi and

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[1] *Republic*, Book VII, 517.

Eleusis, the pre-philosophic religions of oracles and mysteries. The priests of Delphi claimed certainty, and people were willing to admit their claim. "Was there," an Athenian might ask, "after all so great a difference between Socrates' 'demon' and Plato's own poetic imagination of the priestess-medium at Delphi?" Anyhow, although one had doubts as to the supernatural origin of the Delphic cult, would it not be well to use it for the maintenance of social discipline? Paris might be "worth a mass," and "Paris" for Plato meant the creation of a pattern of civilized polity that might spread throughout the world.

In the *Republic* he had already urged that his Guardians should tell their subjects "one splendid lie"[1] about their birth. In the *Laws*, social discipline was to be secured by a religious ritual drawn up by the Delphic priests, innovation in which was, in some cases, to be punished by death.

Another weakness appeared among many of the Stoic and Epicurean and Cynic successors of Plato and Aristotle. The Greeks were no more able than ourselves to solve that problem of determinism and free will, which to-day is an even more serious hindrance to the co-operation of emotion and reason in the process of judgment than the modern revivals of Platonic and Neoplatonic mysticisms. A Greek thinker could attain the feeling of certainty for which all men long by conceiving of the whole universe, including himself and his own will, as a single predetermined system of cause and effect. But what was the significance of the feeling of certainty so attained in the daily work of a statesman or citizen? He who would direct wisely his own life or that of others must attempt by an effort of will to strengthen in himself certain impulses and habits and to inhibit others; and he must encourage a similar effort in those whom he can influence. Does not such an attempt involve a useless striving against that scheme of cause and effect which alone makes the universe intelligible to him? The danger of fatalist quietism always stood on one side of Greek philosophy just as the danger of hypnotic mysticism stood on the other side. And the danger of quietism was perhaps increased when Pyrrho the "Sceptic," after the death of Aristotle (322 B.C.) returned from India. There was always a quietist possibility in the Stoic teaching of the early Roman Empire, and when reading, for instance, Marcus Aurelius one feels that at any moment he might have laid down both power and responsibility and retired to live like Diogenes the life of a hermit.

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[1] *Republic*, Book III, 414.

Both the strength and the weakness of Greek philosophy were put to the test when, among the Greek-speaking Jews of Antioch and Alexandria, Greek culture, between 200 B.C. and A.D. 100, came into contact with the religion of Israel.

That contact was fatal to Greek philosophy as an organized discipline and ultimately substituted for it the Christian religion, which was to dominate European civilization from the fifth to the eighteenth century, and which still influences the process of judgment both among Western Christians and Western non-Christians.

When the Palestinian Hebrews first appear in history their religion does not seem to have differed in essentials from that of other near-Eastern tribes who had been reached superficially if at all by the rationalized mythologies which had been developed and written down in the temple libraries of Egypt and Mesopotamia. It is not likely that many of the "Habiru" mentioned in the Tell-el-Amarna letters could read either hieroglyphic or cuneiform or the scripts of their Philistine or Hittite coastal neighbours. The first written documents of the Hebrew religion may have been lists of tabus (such as are found in Leviticus) for avoiding the wrath of a non-ethical tribal God, and preserving by ritual observances the fertility of herds and crops. And these lists may have been succeeded by written versions of the tribal stories of Abraham, Isaac, and Jacob, who gained the favour of Yahveh by means which Plato would have condemned as severely as he did the stories of divine intervention in the Homeric wars.

But the books of the Old Testament seem to show that already in the eighth century B.C., two hundred years before Pythagoras founded his school of ascetic morals at Crotona, and three hundred years before Socrates began to teach, Amos and Hosea were already in conscious and angry revolt against much of the popular religion of their day, and were calling on their readers to prefer righteousness and justice to "burnt offerings" and "meat offerings." The Deuteronomic code of the seventh century B.C. was profoundly influenced by the prophetic conception of righteousness. But it also, as it was developed by post-exilic legalists, strengthened the Jewish tendency to treat ritual precision both as the fruit and test of righteousness and as a means of securing the divinely ordained separation of the Jewish people from the non-Jewish world.

In 332 B.C. Alexander, the pupil of Aristotle, marched through Palestine on his way to the conquest of Egypt and the foundation of Alexandria. After his death Palestine became part, first of the empire of the Ptolemies, and later of the Seleucid kingdom whose Greek despots had their capital at Antioch. The Ptolemies welcomed Jewish settlers in Alexandria, and the Jews shared in the Greek-speaking intellectual life which was centred in the great Library and College

From this situation arose two main types of Jewish thought, one centred among the Aramaic-speaking and Hebrew-reading thinkers of Palestine, and the other among the Greek-speaking Jews of Alexandria, who read the Jewish scriptures in the Septuagint translation. In Palestine the nationalist Pharisaic party fiercely maintained the traditions of the ritual law against the hellenizing policy of their Greek or Graeco-Roman masters; and within the Pharisaic party the prophetic conception of righteousness began to separate itself from the more mechanized conception of ritual precision.

The discourses of Jesus reported in the first and third Gospels indicate a more conscious break with Pharisaism, and an insistence that his followers should aim not at an external fulfilment of the law, but at the strengthening of social motives in themselves. "Ye have heard that it was said, Thou shalt love thy neighbour, and hate thine enemy: but I say unto you, Love your enemies, and pray for them that persecute you."

Meanwhile some of the Greek-speaking Jewish scholars in Alexandria were welcoming Greek philosophy and especially the thought of Plato, as giving a deeper meaning to their own traditional conception of righteousness. This new influence may be clearly traced in the later Jewish "Wisdom" literature, the importance of which in the history of human thought modern scholars are now making clear.[1]

In that literature the Platonic conception of Wisdom, as a process of "caring for the soul" which leads to perfection, is set out with a passion and beauty of imagery which Plato would not have refused to acknowledge. "Wisdom," says the author of the Book of Wisdom, "is radiant and fadeth not away; and easily is she beheld of them that love her, and found of them that seek her. She forestalleth them that desire to know her, making herself first known. He that riseth up early to seek her shall have no toil, for he shall find her sitting at his gates. For to think upon her is perfectness of understanding, and he that watcheth for her sake shall quickly be free from care." (Chap. vi. 12–15.)

But a modern thinker who comes from Plato and Aristotle to the Wisdom literature in search of help for the exercise of social judgment in the modern world, is conscious that in the transition from fourth-century Athens to first-century Alexandria something essential has been lost. In the Alexandrian Wisdom writings we are constantly made to realize that the writers are not free philosophers who are training free citizens to exercise judgment on behalf of a consciously self-governed community, but subjects of a semi-Oriental despot, who are themselves without settled political and social rights, and are dependent for all success on the caprice of the holders of power. Intermingled with the beautiful descriptions of the exaltation of the soul to be reached by self-discipline are promises of a rather mean type of material prosperity. The wise man may hope to judge his fellows, but he will do so because he has found favour with the monarch.[1]

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[1] The Wisdom literature of the hellenistic period is marked by its use of the Greek "sophia" (Wisdom) or its Hebrew equivalent. The most important books are the Wisdom of Solomon (or Book of Wisdom) and the more systematic treatises of Philo (20 B.C. to A.D. 45).

Of the earlier Jewish "Wisdom" writings, Ecclesiasticus (*circ.* 180 B.C.), Ecclesiastes, and Proverbs, chaps. viii, ix, are believed by Canon G. H. Box to reflect the influence of Greek thought (see the *Clarendon Bible*, vol. v, "Judaism in the Greek period").

In the Jewish Neoplatonist treatises of Philo (20 B.C. to A.D. 45), on the other hand, the world of organized society is almost completely ignored, and one seems to be reading psychological directions for the training of a sixth-century Benedictine monk, or for a man who in Periclean Athens would have called himself "idiotes"—one who deliberately takes refuge in mystic contemplation from the realities and responsibilities of civic life.

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[1] Whoever wishes to understand the Wisdom Books would do well to read the touching little book, *An Egyptian Childhood* (Routledge, 1932, tr. Paxton), by Taha Hussein. Professor Hussein, who has been blind almost from infancy, here describes the first thirteen years of his life in his Egyptian Moslem family. The Koran in which Mahomet had incorporated many of the traditions and much of the spirit of Judaism plays the same part in his education as the Books of the Law in Alexandrian Jewry. The family are determined that the clever blind boy shall learn the Koran by heart as a first step to becoming such a "learned man" (one of the "Ulema") as is described in Ecclesiasticus (chap. xxxviii). Just as the teachings of Plato opened a wider horizon to Philo, so the science and literary criticism of modern Europe brought to Professor Hussein understanding of the world movement of thought and knowledge with all its opportunities and dangers.

After the destruction of Jerusalem in A.D. 70 and the deaths of the original Jewish disciples of Jesus, Judaism and Christianity rapidly drew apart. The language of the Christian congregations remained for a time even so far west as Rome, almost entirely Greek, and the new Gentile converts in the Mediterranean cities used the Greek version of the Hebrew scriptures in their congregational worship. But the message which Paul and his followers spread among the Greek-speaking Jews and Gentile "god-fearers" in the Mediterranean contained elements not found in hellenistic Judaism. The most important of these elements were the Gospel sayings and deeds ascribed to Jesus (including the promises that he would soon reappear as the saviour and judge of mankind), and that conception of the eucharistic meal which related it to the mystery cults of Asia Minor.

Paul died about A.D. 62. The Nicene Council sat in A.D. 325; Constantine was baptized in 337;

and so began that great experiment which we call the Ages of Faith. For more than a thousand years the conscious intellectual and moral life of Europe was directed, in spite of quarrels and periods of confusion, by an organized philosophy, expressing itself through a unified and disciplined priestly order, and supported by secular authority.

How far during that period was the process of judgment made more effective for the wise guidance of social life? Would men's judgment have been more successful if there had been no such organized and established philosophy in Europe? Or if some other philosophy, Confucianism perhaps, or the popular Stoicism of the Roman Empire, had occupied the place of the Christian Church? Was it a benefit or a disaster for Western civilization when the unity and world-authority of the Catholic Church were broken by the events of the sixteenth and seventeenth centuries?

Anyone who attempts, however imperfectly, to answer such questions has to remember that wise judgment requires a union of right reasoning with right emotion, and that human beings can only to a very limited extent control either their reasoning or their emotions by a direct effort of will. If a man is commanded to love his neighbours or his god, or to believe a religious or philosophic creed, he will find it difficult or impossible to carry out that command by a simple decision to obey.

The Greek philosophies had owed the measure of success which they achieved to the fact that they had given each disciple something more than a mere command to live "justly" or "in accordance with nature." They offered him a logically coherent account of the universe by which his emotions of religious awe and aesthetic ecstasy could be stirred, and by which with the help of the newly elaborated rules of logic he could deduce the consequences of his action in time and eternity. And they also offered him membership of a society which, as long as it held together, could stimulate his instincts of solidarity and affection, and by which the intellectual and emotional habits of himself and his children could be formed. Each philosophic school offered him also the story of a founder whose example they could imitate and whose personality they could love. But those who, during the first centuries of the Christian era, built up that Catholic faith which was defined at Nicæa and organized by Gregory the Great, and to preserve which in the sixteenth century the leaders of the Counter Reformation fought, were not philosophers quietly considering the conditions of success in the process of social judgment. They were passionate East-Mediterranean devotees, determined to spread abroad a message whose authority would, they felt, disappear if its meaning were not made clear, and if its preachers were not compelled to agree in their statement of that meaning.

Most non-Catholic thinkers would now recognize that the creators of Catholic Christianity made a grievous mistake in emphasizing rather the dogmas which were the conclusions of their reasoning than the method by which those conclusions were to be formed. Each school of Greek philosophy had its own dogmas, but Greek philosophy never lost its conception of itself as a method. In the second book of the *Laws*, Plato, who turned in his despair to the authority of the Delphic priesthood, yet writes, as he did in the *Republic*: "Let us follow whithersoever the argument leads us." And when Aristotle declared that deeply as he loved Plato he loved truth more, the "truth" which he preferred was the method of caring for the soul which he had learnt from Plato and which led him away from Plato's conclusions.

As soon as Catholic Christianity announced that its message was not a method of attaining wisdom but an unchangeable and supernaturally ordained faith, "once for all," as it was said by the second-century writer of the Epistle of St. Jude, "delivered unto the saints," belief in that faith became the supreme duty of the Christian and disbelief the supreme sin. Very early in the history of Christianity it came to be an article of the faith that God had decreed that the sin of disbelief or even non-belief would be punished by an eternity of torment in hell. And Augustine had Catholic authority on his side when he declared that for the vast majority of human beings that sin had been inevitably ordained since the beginning of time.

"Men," it is often said, "are better than their creeds." Throughout the "Ages of Faith" most men and women, even though they saw each week the painted visions of heaven and hell on their Church walls, worked and played, married and were given in marriage, mended the roads, paid their taxes, and if called upon to rule their neighbours tried to rule justly, with only occasional thought of the tremendous implications of Catholic theology. Throughout the Middle Ages there must have been many priests like Chaucer's village parson who did their best rather to prevent quarrels and promote clean living than to discover and denounce Lollards or Waldenses.

But the progress of civilization then depended, as it now increasingly depends, not on the many who were better than their creeds, but on the few who took their intellectual convictions with full seriousness and were prepared with Plato to follow "whithersoever the argument leads." And those few, as long as they do not change their creeds, do not change either the logical conclusions or the practical policies which follow from their creeds. Sir Thomas More was both the last great medieval Englishman and the glory of the English revival of learning. No man of his time had finer intellectual courage or quicker human sympathy. And because More was willing to follow out his principles either in going cheerfully to death rather than acknowledge royal authority in matters of belief or in saving ignorant souls from the danger of heresy, he was responsible, as Chancellor of England, for the torture and burning of men who were as willing as he was himself to follow whithersoever their convictions led them.

Dante was one of the greatest of Christian philosophers. In the poem which ten thousand years hence will still move the thoughts and emotions of mankind he bases on the theology of St. Thomas Aquinas an allegory of the process by which the human soul attains self-mastery, and his Vergil says: "Free, upright and whole is thy will . . . wherefore I do crown and mitre thee over thyself."[1]

But Dante describes hell as a signal instance of God's wisdom and love, and, if there had been another crusade against the heretic Albigenses in which Dante had been offered a command, he might have been as willing as the elder Simon de Montfort to slaughter and burn men, women, and children who clung with equal courage to a different philosophy.

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[1] *Purgatorio* XXVII, 140, 142, translated T. Okey.

I sometimes find myself wondering how, holding my present view of judgment as involving a harmony of reason and emotion, I could have argued with St. Theresa or Sir Thomas More against the doctrine of eternal punishment for heresy and the practical policy of the temporal punishment of heretics which followed logically from that doctrine. In arguing with Sir Thomas More I could not hope to make him either accept the arguments of Luther against indulgences or understand the conceptions of the psychology of belief which underlie the modern higher criticism of the Scriptures.

But I think that, with the help of his own genius, I could perhaps explain to him, however clumsily, my own view.

I should perhaps ask him, not only to "think out" all the logical implications of the dogmas which he accepted, but to "feel out" all their implications in terms of human suffering. Then I would ask him to bring emotion and reasoning together in a single process and to "imagine," as Shelley would say, that which he believed himself to "know." And I would implore him in the light of that imagination to re-examine, with no surrender of intellectual integrity, the evidence from which his conclusions were drawn. In this also I should probably fail, and he and the heretics whom he condemned would go their several ways towards martyrdom.

At the Reformation, indeed, the first steps towards a right of private judgment in Christendom were won not by argument but by force. Protestantism in Germany and England could develop its strictly limited conception of intellectual freedom because Luther in the Wartburg and Queen Elizabeth at Tilbury could say to the unconvinced rulers of the Church: "I am here; burn me if you can."

CHAPTER FIVE

THE NEW PHILOSOPHY

"*We look with favour upon all forms of learning, but with particular grace we encourage philosophical studies, especially those which by actual experiments attempt to shape out a new philosophy or to perfect the old.*" (Charles II in the Charter of the Royal Society, 1662.)

Three hundred years ago, on June 22, 1633, the Inquisition pronounced sentence on Galileo Galilei, aged seventy. "You have rendered yourself," they said, "vehemently suspected by this Holy Office of heresy, that is of having believed and held the doctrine (which is false and contrary to the Holy and Divine Scriptures), that the sun is the centre of the world, and that it does not move from east to west, and that the earth does move, and is not the centre of the world." "We thought it necessary to proceed to the rigorous examination of you, in which . . . you answered like a good Catholic." They then sentenced him "to the formal prison of this Holy Office for a period determinable at Our pleasure"; and published his abjuration, in which he swore to "abjure, curse, and detest the said errors and heresies," and declared, "if I shall know any heretic, or anyone suspected of heresy, I will denounce him to this Holy Office."[1]

The Inquisitors must have felt that the Church had now stamped out the Copernican error throughout Christendom. But the Catholic Church in 1633 no longer covered all Europe. A few copies of Galileo's condemned book were at once smuggled out of Italy, and his next great work was published in Holland behind the dykes which had baffled the Spanish armies, and was read in the castles of princes in Germany and across the Channel in Oxford colleges. And the "new philosophy" of Copernicus and Galileo had a stronger defence than dykes or walls. The truth or falsehood of Pelagianism or Manichaeism could not be tested by experiment. But every schoolboy could now prove Galileo's statements by dropping, as Galileo had done at Pisa, a larger and smaller weight simultaneously from a height, and could compare the result with Aristotle's words and the syllogistic conclusions drawn from them. A country gentleman or merchant could buy one of the new telescopes and could see for himself the moons of Jupiter or the spots on the sun. And an astronomer or mathematician, after spending a few years in space-measurements and time-measurements, could test Kepler's laws of motion or perhaps help to find other physical laws.

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[1] J. J. Fahie, *Galileo, His Life and Work*, 1903, pp. 317–18. Quoted by B. Russell, *The Scientific Outlook*, 1931, pp. 30–2.

It was certain that so tremendous an instrument as the "new philosophy" would influence other forms of thought as well as physics and astronomy; but I shall in this chapter confine myself mainly to its effect in producing that "English" or "Positive" or "Utilitarian" moral philosophy which was a direct attempt to apply the new methods to problems of human conduct. About 1636 Thomas Hobbes, travelling as tutor to the young Earl of Devonshire, came to Florence and there visited Galileo, who had been living under arrest since his sentence three years before. Six years later, in 1642, Hobbes printed in Paris the *De Cive*, in which he said that "every one is compelled to seek what for him is good, and avoid what for him is bad . . . by a necessity not less than that which compels the stone to fall downward."[1] After the death of Charles I, Hobbes attached himself to Charles II in exile and tried, though with no more success than Plato in Syracuse or Machiavelli in sixteenth-century Florence, to teach the science of government to a prince who was to be an absolute monarch.

Newton's *Principia* was published in 1687, and

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[1] *De Cive*, Chap. I, par.17. Quoted by Elie Halévy, *La Formation du Radicalisme Philosophique*, vol. i, p. 277.

Locke's *Essay Concerning Human Understanding* in 1690. Thenceforward every decade seemed to reveal a closer analogy between the laws of human behaviour and the laws of physical science. Hartley's *Observations on Man*, with its theory of the undulatory transmission of impressions by vibrations in the nervous system, appeared in 1749. And though Newton and Locke and Hartley all believed themselves to be orthodox Protestant Christians, the Newtonian and Lockian tradition could be used and was used by Helvétius and other French thinkers as the basis of an objective and non-supernatural conception of human behaviour.

In the preface to *De l'Esprit* (1758) Helvétius said that he proposed "to treat ethics like all the other sciences, and to make ethics experimental as well as physics." In this experimental social science, "interest" (or, as Bentham afterwards defined it, "happiness" or "pleasure" or "utility" and their opposites) took the place of gravitation in the Newtonian physics.[1] All men's inclinations were necessarily attracted by pleasure and repelled by pain. And continued pleasure without pain was happiness.

The "Utilitarian" pleasure-pain psychology was developed, during the second third of the eighteenth century, by French and British thinkers who kept up a close intellectual and personal connection in the intervals between wars waged by the professional armies and navies of their countries.

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[1] "Si l'univers physique est soumis aux lois du mouvement, l'univers moral ne l'est pas moins à celles de l'intérêt," *De l'Esprit, Discours* II, Chap. II.

In 1769 Bentham, at the age of twenty-one, read Helvétius, and afterwards wrote that any "work of mine that has been or will be published on the subject of legislation or any other branch of moral science is an attempt to extend the experimental method of reasoning from the physical branch to the moral. What Bacon was to the physical world, Helvétius was to the moral."[1]

For the historian of social institutions the most important figure in the British Utilitarian school is Bentham himself, with his practical fertility in legal and constitutional invention, his passion for human happiness, and the combined subtlety and naïvety of his intellect. But a twentieth-century social thinker who is considering the present relation of science to judgment and of judgment to the possibility of social invention, will perhaps get less help from Bentham's *Principles of Morals and Legislation* than from John Stuart Mill's *Autobiography*, his correspondence with Carlyle, and the chapters in his *Logic* on the "Method of the Moral Sciences."

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[1] See E. Halévy, *La Formation du Radicalisme Philosophique*, pp. 25, 26, and 190, and Wallas, *Great Society*, Chap. VII.

In the *Autobiography* Mill (who was born in 1806) describes his revolt between 1826 and 1832 against the philosophy which he had learnt from his father (James Mill) and Bentham. They had prided themselves, and had taught him to pride himself, on the fact that the "pleasure-pain" principle constituted a standard external to the feelings of those who used that standard in social thought. "The various systems," Bentham had written in the *Principles*, "that have been formed concerning the standard of right and wrong . . . consist all of them in so many contrivances for avoiding the obligation of appealing to any external standard, and for prevailing upon the reader to accept of the author's sentiment or opinion as a reason, and that a sufficient one, for itself."[1] Just as the problem whether a given bridge will stand or fall, or a drug cure or kill, is decided by causes over which the sentiments of the engineer or the doctor have no influence, so the Utilitarians believed the answer to the problem whether a particular statute or economic system will increase or decrease human happiness, is in no way dependent on the "sentiments" of the legislators or employers who introduced it.

Bentham and James Mill wrote and taught at a time when British social and political inequality was defended by all the forces of established religion and by a wealth of noble sentiment which helped to give us a European reputation for national hypocrisy. In a footnote to the *Principles of Morals and Legislation* Bentham gives a list of the "ways of thinking and arguing which then served as a cloke and pretence, and aliment, to despotism"—"moral sense," "rule of right," "fitness of things," "law of nature," "right reason." A man, for instance, "says that here is an eternal and immutable Rule of Right: that that rule of right dictates so and so: and then he begins giving you his sentiments upon any thing that comes uppermost: and these sentiments (you are to take for granted) are so many branches of the eternal rule of right."[1] Bentham and his disciples were sick of the word "sentiment."

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[1] *Works*, Bowring's edition, vol. i, p. 257.

When John Stuart Mill as a child began to be taught by his father, both Bentham and James Mill had become convinced and angry political democrats. They tended to take their own passionate desire for the greatest happiness of the greatest number for granted, and were no more inclined to talk about it than a soldier on a campaign is inclined to talk about his patriotism. If a judge or bishop did not share their passion, a British democratic government would, they believed, some day bring it about that his personal happiness would depend on his acting as if he did share it. And meanwhile, the "Greatest Happiness Principle" assumed that personal happiness would necessarily come to any reformer who had learnt to associate the idea of it with the idea of general happiness. "My father's teachings," said Mill, "tended to the undervaluing of feeling. It was not that he was himself cold-hearted or insensible; I believe it was rather from the contrary quality; he thought that feeling could take care of itself; that there was sure to be enough of it if actions were properly cared about."[1]

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[1] Ibid., pp. 8 and 9.

But in 1826, at the age of twenty, John Stuart Mill found that in his own case feeling could no longer be trusted to "take care of itself." A year or two earlier he and his young friends had been typical "Benthamites." "We found," he says, "all the opinions to which we attached most importance, constantly attacked on the ground of feeling. Utility was denounced as cold calculation; political economy as hard-hearted; anti-population doctrines as repulsive to the natural feelings of mankind. We retorted by the word 'sentimentality' which along with 'declamation' and 'vague generalities' served us as common terms of opprobrium. . . . What we principally thought of, was to alter people's opinions; to make them believe according to evidence, and know what was their real interest" (pp. 93–4).

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[1] *Autobiography*, p. 93. I quote from the edition edited by Professor H. J. Laski in 1924 for the Oxford University Press series of the World's Classics.

Now, however, the automatic desire for the happiness of "the greatest number" on which the whole Utilitarian position depended seemed to have died in him. His usually colourless style rises to real eloquence in those pages of his *Autobiography* in which he describes his experience during "a dull state of nerves" (due in part to overwork) in the autumn of 1826. "Suppose," he asked himself, "that all your objects in life were realized; that all the changes in institutions and opinions which you are looking forward to, could be completely effected at this very instant: would this be a great joy and happiness to you? And an irrepressible self-consciousness distinctly answered, 'No!' At this my heart sank within me: the whole foundation on which my life was constructed fell down. All my happiness was to have been found in the continual pursuit of this end. The end had ceased to charm, and how could there ever again be any interest in the means? I seemed to have nothing left to live for" (p. 113). "To know that a feeling would make me happy if I had it, did not give me the feeling . . . I was . . . left stranded at the commencement of my voyage, with a well-equipped ship and a rudder, but no sail . . . " (p. 117). "I frequently asked myself, if I could, or if I was bound to go on living, when life must be passed in this manner. I generally answered to myself, that I did not think I could possibly bear it beyond a year" (p. 119).

His first relief came accidentally. He was reading a passage in Marmontel's *Mémoires* in which the boy Marmontel resolves, after his father's death, to take his father's place in providing for the family. "A vivid conception," he says, "of the scene and its feelings came over me, and I was moved to tears. From this moment my burden grew lighter. The oppression of the thought that all feeling was dead within me, was gone" (p. 119). "Thus the cloud gradually drew off, and I again enjoyed life; and though I had several relapses, some of which lasted many months, I never again was as miserable as I had been" (p. 120).

He then, in words closely resembling those of Plato, describes how he determined to produce a harmony in his soul by the deliberate cultivation and co-ordination both of thought and of feeling. "I never," he says, "turned recreant to intellectual culture" (p. 121), but "the maintenance of a due balance among the faculties now seemed to me of primary importance. The cultivation of the feelings became one of the cardinal points in my ethical and philosophical creed." "I now began to find meaning in the things which I had read or heard about the importance of poetry and art as instruments of human culture" (p. 122).

He emphasizes, like Plato, the power of music, and describes the effect of his discovery in 1828 of Wordsworth. "What made Wordsworth's poems a medicine for my state of mind, was that they expressed, not mere outward beauty, but states of feeling, and of thought coloured by feeling, under the excitement of beauty" (p. 125).

Mill, indeed, who grew to manhood in the years which followed the Napoleonic wars, was in 1826 in a position singularly like that of Plato, who became a man in the years of confusion which followed the Peloponnesian War. And in seeking for a harmony of thought and feeling which should enable him to guide his own life, Mill, like Plato, had on one side of the narrow path which he had chosen the mechanistic naturalism of Anaxagoras and Helvétius, and on the other side the supernaturalism of Delphi and Canterbury.

And many other young men a century ago had to find their way between the same alternatives. In 1828–9, for instance, Frederick Denison Maurice, the disciple of Coleridge, and his friend John Sterling, joined a little debating society which Mill had helped to found. They brought with them, Mill says, "the general doctrines and modes of thought of the European reaction against the philosophy of the eighteenth century."[1] And Sterling found to his delight that "Wordsworth, and all which that name implies," belonged to Mill "as much as to him and his friends."[2]

In the Church of England there had always been, since the Elizabethan Settlement, a few Platonic "idealist" thinkers who, like the writer of the Fourth Gospel, based their religion rather on mystic experience than on traditional authority or calculation of the pleasures of heaven and the pains of hell. Sterling, therefore, and F. D. Maurice found it possible to join the Church of England. They were both ordained in 1834, and each of them afterwards had his own difficulties in reconciling Platonism to the official Anglicanism of their time.

Meanwhile Thomas Carlyle came to London from Craigenputtock in August 1831 to offer *Sartor Resartus* to the publishers. He was eleven years older than Mill and twenty-two years younger than Mill's father. He had entered Edinburgh University as a country lad of fourteen in 1809 to be prepared for the Presbyterian ministry. He had specialized in mathematics and attended the lectures of John Leslie, the mathematical physicist, and John Playfair, the "uniformitarian" geologist.[3] When he left the University he became a schoolmaster, teaching mathematics and reading Newton and Laplace. He lost any belief in orthodox religion, abandoned schoolmastering, lived by literary hack work and casual tuition, and became more and more radical in politics as he watched and shared the sufferings of the Scotch working-men in those lean years. Like Mill, he accepted the mechanistic conception of the universe and human nature, and like Mill he suffered horribly because that conception failed to satisfy his emotional needs. "To me," he wrote of this period, "the Universe was all void of Life, of Purpose, of Volition, even of Hostility: it was one huge, dead, immeasurable steam engine rolling on, in its dead indifference, to grind me limb from limb." He, like Mill, had contemplated suicide, and says, "From Suicide a certain aftershine (*Nachschein*) of Christianity withheld me: perhaps, also, a certain indolence of character."[1]

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[1] *Autobiography*, p. 109.

[2] Ibid., p. 131.

[3] See Emery Neff, *Carlyle*, pp. 23–5. New York, 1932.

Carlyle was saved, first by a sudden assertion (in Leith Walk, 1822) of his own power to oppose the mechanical universe even though it destroyed him; and then by a growing acceptance of German transcendental idealism as expounded by Fichte, Novalis, and Goethe in certain moods, as well as by better-paid work and in 1826 by his marriage.

In *Sartor Resartus*, written during 1830 and

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[1] *Sartor Resartus*, p. 115, quoted in Neff, op. cit., p. 53.

1831, and in his article on "Signs of the Times" in the *Edinburgh Review* of June 1829, Carlyle is stating his own position. "High Platonic mysticism," he says of his hero Teufelsdröckh, "was perhaps the fundamental element of his nature."[1]

Henceforward Carlyle used the word "God" in the Platonic sense of the "Divine Idea of the world," and set himself, while rejecting the Christian mythology, to create a credible intellectual framework for Christian mysticism. In *Sartor Resartus*, for instance, he wrote of Voltaire: "The task appointed thee seems finished. Sufficiently hast thou demonstrated this proposition . . . that the Mythus of the Christian Religion looks not in the eighteenth century as it did in the eighth. . . . Wilt thou help us to embody the divine Spirit of that Religion in a new Mythus, a new vehicle and vesture, that our Souls, otherwise too like perishing, may live?"[2]

In the spring of 1831 Carlyle, at Craigenputtock, had read Mill's *Examiner* articles on "The Spirit of the Age," and had recognized in them a phraseology and form of thought unlike that of the older Utilitarians.

"Here," said Carlyle to himself, "is a new mystic."[3] On arriving in London later in that year to offer *Sartor Resartus* to the publishers, he asked about the writer of the *Examiner* articles, and was told that he was John Mill, "a converted Utilitarian who is studying German."[1] Carlyle met Mill and wrote to his wife that he had had almost four hours of "the best talk I have mingled in for long." On his return to Craigenputtock he corresponded with Mill and for a time thought of him as a disciple of his own, who "had been converted by the head of the mystic school." In February 1833 he wrote from Scotland to his brother John that Mill "is growing quite a believer, *mystisch gesinnt*," but added, "yet with all his old utilitarian logic quite alive in him." In August 1833 Carlyle wrote to Mill, "You are as yet consciously nothing of a Mystic; your very Mysticism (for there is enough of it in you) you have to translate into Logic before you give it place."[2]

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[1] *Sartor Resartus*, pp. 44, 45. Chapman and Hall.

[2] Ibid., pp. 133–4.

[3] Mill, *Autobiography*, pp. 147–8.

From 1834 Carlyle lived permanently in London, where he soon came to know and love Sterling. In the intercourse of the three men the divergence between their ways of solving the problem of science and emotion became clear.

On the one hand, Carlyle threw scorn upon Sterling's acceptance of Coleridge's "sublime secret of believing by 'the reason' what 'the understanding' had been obliged to fling out as incredible."[1] To Carlyle as to Mill such a surrender was "high treason." In describing Sterling's decision to take orders, Carlyle exclaims, "What the light of your mind, which is the direct inspiration of the Almighty, pronounces incredible—that, in God's name, leave uncredited; at your peril do not try believing that."[2]

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[1] See Emery Neff, *Carlyle and Mill*, p. 7. Second edition, 1926.

[2] See ibid., pp. 8, 17, 21.

And on the other hand Carlyle increasingly lost sympathy with Mill's attempt to achieve a harmmony of reason and emotion by "translating mysticism into logic." For a moment, in his *Edinburgh Review* article of 1829, Carlyle had been able to write of science and mysticism as "two departments of man's activity," and declare that "only in the right co-ordination of the two, and the vigorous forwarding of *both* does our true line of action lie."[3]

But such a co-ordination, as Mill saw, required the application to "mystical" experiences of emotion and consciousness, of the scientific method of observation and quantitative comparison. And throughout his long life Carlyle always identified any quantitative study of the human physiological and psychological type with the mechanized associationist hedonism against which he had revolted. He always feared "that progress of Science, which is to destroy Wonder, and in its stead substitute Mensuration and Numeration," and which will lead man "to fancy himself a dead Iron-Balance for weighing Pains and Pleasures on."[1] He wrote to d'Eichthal, the Saint-Simonian, in 1830, that religion grows out of "the deep mystic immeasurable sympathy which man has for man,"[2] and already in his *Edinburgh Review* article of 1829 he had raged against "natural histories of religion" and "attempts to account for the development of genius."[3]

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[1] Carlyle, *Life of John Sterling*, p. 46. Chapman and Hall, 1851.

[2] Ibid., p. 52.

[3] *Collected Works*, II, p. 332, 1869.

Carlyle might have come nearer to a harmony of thought and feeling if he had experienced the full implications of the doctrine which in *Sartor Resartus* he quotes from Epictetus that "the end of man is an Action and not a Thought,"[4] and that it is only in action that the full conditions of wisdom are revealed.

Action, even if it is nothing more than the ingenious procedure of Köhler's chimpanzee in reaching a banana, requires an intimate coordination of reason and impulse. If Carlyle had governed a colony, even for a few years, or commanded a regiment, or fought like Sir David Bruce against tropical disease, or had even grown and counted sweet peas like Gregor Mendel, he might have learnt to respect both the intellectual and the emotional aspect of social judgment. But he was fated always to write about action and never to act. And although he was to live for fourteen years after the publication of the *Origin of Species*, he never recognized in Darwin the man whose patient energy of mind and character was helping mankind towards a control over their own racial future.

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[1] *Sartor Resartus*, pp. 46, 152.

[2] Quoted in Neff, *Carlyle and Mill*, p. 215.

[3] See ibid., p. 207.

[4] *Sartor Resartus*, p. 109.

Mill, from about 1845 to 1880, occupied a position only disputed by a few rebels like Carlyle and Ruskin, of dominance in British social philosophy. But in reading his books and correspondence one receives the impression that he did less than a man of his ability and devotion and experience might have done to create and diffuse—as Aristotle did or Goethe—new patterns for human life. This impression is, of course, partly due to the fact that Mill's ability was not so great as Aristotle's or Goethe's; but it is also partly due to the fact, which comes out clearly in the final chapter of his *Logic*, that he separated "science" from "art" and included in art, and therefore excluded from science, some of the most important conditions of creative thought.

Mill begins that chapter by distinguishing between "those among the branches of knowledge called Moral which are sciences in the only proper sense of the term, that is, inquiries into the course of nature," and "what is called the knowledge of duties; practical ethics, or morality."[1] "The imperative mood is," he says, "the characteristic of art, as distinguished from science . . . and ethics, or morality, is properly a portion of the art corresponding to the sciences of human nature and society" (p. 546).

"The relation in which rules of art stand to doctrines of science may be thus characterized. The art proposes to itself an end to be attained, defines the end, and hands it over to the science. The science receives it, considers it as a phenomenon or effect to be studied, and having investigated its causes and conditions, sends it back to art with a theorem of the combination of circumstances by which it could be produced" (pp. 547–8).

". . . The reasonings which connect the end or purpose of every art with its means, belong to the domain of science, the definition of the end itself belongs exclusively to art, and forms its peculiar province" (p. 552). "A proposition of which the predicate is expressed by the words *ought* or *should be*, is generically different from one which is expressed by *is*, or *will be*. It is true that, in the largest sense of the words, even these propositions assert something as a matter of fact. The fact affirmed in them is, that the conduct recommended excites in the speaker's mind the feeling of approbation. This, however, does not go to the bottom of the matter; for the speaker's approbation is no sufficient reason why other people should approve; nor ought it to be a conclusive reason even with himself" (p. 553).

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[1] *Logic*, vol. ii, p. 546, 1875 edition.

Mill takes as an instance of this the fact that "the builder's art assumes that it is desirable to have buildings; architecture (as one of the fine arts), that it is desirable to have them beautiful or imposing" (p. 552). It follows from his argument that the art of architecture "hands over to science" the problem how to make beautiful buildings, and science "sends it back" to the art with "a theorem of the combination of circumstances" by which beautiful buildings are produced.

Mill's *Logic* was first published in 1843 at a time when in European architecture the scientific "theorem of the combination of circumstances" which is called Gothic was beginning its victory over the equally scientific theorem of Palladian classicism. Both the neo-gothicists and the neo-classicists of the nineteenth century told themselves that it was desirable to have beautiful buildings, and then "handed over to science" the problem of making such buildings. And the reason why few of us now desire to look at either Victorian classical or Victorian Gothic buildings is that neither the architects of that period nor their employers were possessed by an effective conviction that beautiful buildings cannot be made (any more than beautiful poetry can be written) unless the passion for beauty inspires, as it did in ancient Greece and medieval France, and as many of us believe that it does in the best architecture of to-day, the artist's energy and enriches his reasoning. A science which ignores that fact is of little use either for aesthetic or for intellectual creation.

In the isolated case of poetry Mill, after the crisis of 1826, never forgot that the "states of feeling and of thought coloured by feeling," the expression of which had attracted him in Wordsworth, played a necessary and inseparable part in the process of creating patterns of conduct as well as of thought and feeling. But he conceived of poetry as a special kind of work done by a special type of mind. He asked, in a *Monthly Repository* article of 1833 on "Poetry and its Varieties": "Whom, then, shall we call poets?" and answered, "Those who are so constituted, that emotions are the links of association by which their ideas, both sensuous and spiritual, are connected together. This constitution belongs (within certain limits) to all in whom poetry is a pervading principle. In all others [and here Mill apparently includes himself] poetry is something extraneous and superinduced: something out of themselves, foreign to the habitual course of their everyday lives and characters; a world to which they may make occasional visits, but where they are sojourners, not dwellers, and which, when out of it, or even when in it, they think of, peradventure, but as a phantom-world, a place of *ignes fatui* and spectral illusions."[1] It is true that in the essay on Bentham, written in 1838, Mill groups "oratory and popular writing of every kind" with poetry, because it "undertakes to make men feel truths as well as see them"; and that in the same essay he speaks of the degree to which music and "painting, sculpture and the other arts addressed to the eye . . . enter into the moral nature of man, and into the education both of the individual and of the race."[2] But here he is writing, not of the part played by feeling in the creation of works of art, but of the effect of a work of art upon those who, like himself, saw or heard it after it had been created.

Mill's theoretical distinction between the "art" and the "science" of human nature and society must have helped to produce the "strangely dual character"[3] which has been noticed in his writings. Throughout his *Political Economy*, for instance, one can recognize in section after section the sudden change in style and outlook which marks the transition from the "scientific" analysis of "the requisites of production" or "conditions necessary for the large system of production," to emotional protests that the difficulties of Communism "would be but as dust in the balance" if it were the only alternative to "the present state of society with all its sufferings and injustices,"[1] and that "it is questionable if all the mechanical inventions yet made have lightened the day's toil of any human being."[2]

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[1] Mill, *Dissertations*, vol. i, p. 80, 1859.

[2] Ibid., pp. 389, 390.

[3] See Neff, *Carlyle and Mill*, p. 231.

Part of this "dualism" was certainly caused by the fact that Mill's own emotional life was concentrated in his love for Mrs. Taylor, whom he first met in 1830 and married in 1851, and whose exigeant jealousy broke off his intimacy with so many of those who were engaged in the same field of intellectual work. With her he lived in a world apart from his daily labour as a loyal servant of the East India Company and a patient analyst of social theory. And it may have been partly due to Mrs. Mill's ignorance of India that he never, even after his official retirement in 1858, wrote a chapter or a paragraph on "the probable futurity of the population of India," showing the same sympathy with inarticulate aspirations as that which penetrates the chapter in his *Political Economy* on "the probable futurity of the Labouring Classes" in Europe.

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[1] *Political Economy*, p. 128.

[2] Ibid., p. 455.

CHAPTER SIX

ECONOMIC LAWS

PLATO hoped that philosophers would learn the secret of harmonizing reason and emotion by following single-mindedly "whithersoever the argument led them." But philosophers have seldom entered on a new period of creative energy, or acquired authority in the society of their time, unless their emotion and reason have been stimulated by external events as well as by the course of argument, and unless those events have also influenced their less philosophic contemporaries. The creative period of Greek thought followed not only upon the cosmic speculation of the Ionian Physicists and the moral philosophizing of Plato and Aristotle, but also upon the hopes and fears and ambitions stirred among the whole free population of Athens by Marathon and Salamis and by the control of Greek fleets over the east Mediterranean trade-routes. Creative periods of Christianity followed not only on the contact of Greek and Jewish systematic thought in Alexandria and Antioch, and of early Christian and Persian thought in Augustine's fourth-century Africa, or on the study of the Greek philosophic literature among Moorish and Jewish philosophers in twelfth-century Spain; but also upon the emotional and intellectual stresses set up, during a thousand years, by the expansion, the internal organization, and the ultimate disintegration of the Roman Empire.

The "new philosophy" of Galileo provided its own widespread stimulus in the hope which it offered to all mankind of a limitless increase of human control over nature. But the rapid development of that philosophy during the seventeenth and eighteenth centuries, as summed up, for instance, in Diderot's *Encyclopédie* (1751–65), was also helped by the concentration of force and wealth in the new European nation-states, by the rise of oceanic trade, and by the passions of commercial wars.

So, in the early years of the nineteenth century, British social thought was influenced not only by the logically consistent speculations of Locke and Hartley and Bentham, but also by the passions of hope and fear and pity and acquisitiveness which followed the rise of mechanical industry in northern Britain, the economic needs of the Napoleonic wars, and the economic and political results of the Peace of Paris in 1815. And those passions affected not only the professed philosophers like Bentham and the Mills and Carlyle, who tried to think out the whole problem of human conduct, but also the statesmen and men of affairs who were interested in particular aspects of the course of events and who stood between the philosophers and the unthinking "practical people." Since the most pressing problems of the time were, after 1815, rather economic than religious or nationalist, these sectional thinkers mainly concerned themselves with political economy, and started from the position reached by Adam Smith forty years earlier.

In 1817, when the post-war economic depression was becoming unmistakable, the stockbroker, David Ricardo, published his *Principles of Political Economy*, which James Mill had persuaded him to write. In 1825 McCulloch, the newspaper editor, published his *Political Economy*. Robert Owen, the successful cotton-spinner, published in 1815 his *Observations on the Effect of the Manufacturing System*, and Place, the retired master tailor, his *Principles of Population* in 1822. An anticipation of Marxian economics is to be found in the work of Thomas Hodgskin, the retired naval officer, who formulated his Socialist application of the Ricardian economic analysis in correspondence with Place in 1820, and published his *Labour Defended* in 1825.

Bentham, who died in 1832, and James Mill (who published a *Political Economy* in 1821 and died in 1836), represented during this period the philosophic Utilitarianism which overlapped and was overlapped by the more specialized economic work. All these writers were in close emotional contact with contemporary events. And no British social or economic thinker who is now remembered then belonged to the organized but emotionally unstimulated intellectual discipline of the two English or even the four Scottish universities.

To us in the twentieth century the "Socialist" and "Utopian" philosophic economics of Owen and Hodgskin in that short outburst of intellectual fertility seem as important as those of Ricardo and McCulloch and Malthus and the other "classical" economists who were stirred by the same social events.

But the "classical" writers guided for two generations the main stream of British economic policy, and the treatises of their opponents remained as dusty and forgotten pamphlets, to be rediscovered a third of a century later by Karl Marx in the British Museum, and collected by university librarians to-day.

The classical economists were Utilitarian in their psychological assumptions. Like Bentham, they looked for a standard external to the feelings of those responsible for social judgment; and believed that they had found that standard by "extending the experimental method of reasoning from the physical branch to the moral." Ricardo's Law of Rent, Malthus's Law of Population, and

McCulloch's Law of Wages were intended to be used by statesmen and industrialists as the laws of physics were used by James Watt or Humphry Davy.

But as soon as the economists and their disciples began to apply those laws to actual economic problems they were faced, as Carlyle and J. S. Mill were faced in their attempt to reach a consistent philosophic position, with the fact that they were dealing with men and women and children, and not with Watt's engines or Hobbes's falling stones. The spinners and "little piecers" in the cotton factories and the pauper labourers in the villages were not merely passive illustrations of economic laws, but sentient beings who felt real pains and real joys. Again, because men are more or less "social" animals, their pains and joys affected other human beings as well as themselves, and were "ends" as well as means.

Francis Place, though he never became a fully articulate philosopher, was, throughout his life as a working economist and politician, a resolute disciple of Utilitarianism. And in his correspondence with James Mill in 1815 and 1816, while he was preparing plans for his life after retirement from business, he faced that problem of the relation between feeling and science which was to torment the younger Mill ten years later.

On October 16, 1816, Place writes to James

Mill in praise of Hobbes, whom he calls "the old hard-hearted fellow, the father of them all."[1] A year before he had written regretfully, "I cannot talk of some things with some people as calmly as I do of two and two being four, but I will endeavour to improve" (July 20, 1815). But on the other hand he tells Mill, "I have always contemplated the probability of being released from business, and I have been afraid of too much caution as tending to produce cold-heartedness" (August 16, 1816).[2] The distinction between the "hard-heartedness" which he admired and the "cold-heartedness" which he dreaded indicates an attempt in the practical conduct of his own life to bring intellectual integrity into harmony with emotional sympathy.

Sir James Macintosh was both a student of economics and an academically trained philosopher, but in his speech on the Factory Bill of 1832 he was content with a superficial and verbal contrast between the scientific and emotional elements in the process of social judgment. He was, he said, "anxious to avow himself a political economist, but at the same time . . . he would not allow even the principles of political economy to be accessory to the infliction of torture."[3] If he had shared Place's essential seriousness of purpose he would not have left that paradox unresolved.

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[1] Quoted in Wallas, *The Great Society*, p. 85, 1914 edition.

[2] See Wallas, *The Life of Francis Place*, p. 69.

[3] Hansard's *Parliamentary Debates*, February 1, 1832, quoted in Wallas, *Our Social Heritage*, Chap. XI, p. 247.

It is sometimes argued that the severe and avoidable sufferings of the British factory-workers during the first half of the nineteenth century were due to an assumption by the factory owners as well as by economists like Sir James Macintosh that the laws of political economy were not "uniformities" or "tendencies" but commands which it was a moral duty to "obey."

But that is, I believe, an over-simplification of a much less conscious mental attitude. Those British manufacturers and traders who during the "leaping and bounding" period of British industry thought of anything except their annual profit and loss, conceived themselves to be part of a great social process which promised to enrich the whole future of human life. They were told by writers who claimed the authority of "science" that success in that process had depended in the past, and would depend in the future, upon a recognition of certain "uniformities" or "tendencies" in human behaviour, just as the efficiency of their machines depended on a recognition of the "uniformities" or "tendencies" in the behaviour of iron or cotton. "It was not tens per cent but hundreds per cent," a factory owner is reported to have said, "that made Lancashire." And the "hundreds per cent" seemed to be due to the "uniformities" of the master's desire for profit and the men's desire for wages. The fact that the "making of Lancashire" involved hardships to the makers occupied the same place in their minds as the hardships of himself and his men occupy in the mind of the commander of a victorious army during an advance. What mattered was the will to conquer, and the will to conquer owed its strength to the motive of gain. It was afterwards, when Lancashire had been "made," that a new policy would be called for, and more difficult problems of social motive would force themselves on the minds of the sons and grandsons and granddaughters of the early factory owners.

The men who direct the industrialization of Soviet Russia may soon be watching tens per cent in increased output turning into hundreds per cent, though with the important difference that the output is to go to the organized producers and not to the receivers of profit. And their mental attitude may help us to understand the Lancashire of the eighteen-thirties; just as the Lancashire of the eighteen-thirties may help us to understand the Russian mentality of to-day.

Marx, during his thirty-four years (1849–83) of exile in London, soaked himself in English economic literature and in the history of the growth of British machine-industry as recorded in official reports and observed at first-hand by his friend Friedrich Engels in Lancashire. Marx, like the British Utilitarian economists in their more logical moments, assumed the necessary dominance of economic motive in social evolution. Because masters and men both acted in accordance with their economic interest, therefore capital would necessarily be concentrated in fewer and fewer hands, and wages would be kept by the "iron law" of competition at the level of bare subsistence. And equally inevitably the impoverishment of the workers and the decreasing number of the employers would lead to the social revolution. In the historical chapters of *Das Kapital* the Lancashire factory owners therefore played the part of Ahriman in the Zoroastrian theology, and Satan in St. Augustine's Christian Zoroastrianism. They were at once the enemies of mankind and the instruments of a predetermined "scheme of salvation." And when the scheme of salvation has been fulfilled and the Russian Lancashire has been "made," the successors of the present Bolshevist leaders, like the descendants of the Lancashire Strutts and Peels and Potters and Phillipses, may find themselves seeking for a more subtle conception of human motive, to form the basis of a more complex social policy.

I pointed out in the last chapter that J. S. Mill's rigid separation between "art" as concerned with "ends" and science as concerned with means brought it about that in his systematic treatises he makes no serious attempt to solve that problem of harmonizing reasoning and emotion which so deeply troubled his personal life.

When I went to Oxford in 1877 students in the Greats school of philosophy were not urged to read any economics. But I was told by my tutor to read the two volumes of Mill's *Logic* and especially the chapters on "The Logic of the Moral Sciences." These chapters the more industrious among us were expected to study not in order to explore the relation of emotion to reason in the process of social judgment, but in order to learn the mental expedients by which social "laws" were discovered and proved.

In the preliminary synopsis of the *Logic*, Mill says, in words recalling Helvétius and Bentham: "The backward state of the Moral Sciences can only be remedied by applying to them the methods of Physical Science, duly extended and generalized."[1]

Mill divides social laws into the primary uniformities of men's behaviour as individuals and the secondary uniformities of their behaviour in society. "Human beings in society," he wrote, "have no properties but those which are derived from, and may be resolved into the laws of the nature of individual man" (ii, 469). The most important primary social law was Bentham's pleasure-pain principle, interpreted by Mill as the years went on with increasing vagueness. In the "moral science" chapters of his *Logic* he is chiefly concerned with the secondary social laws and with the argument that the method of discovering these laws is essentially "deductive" or "concrete deductive." The social scientist is to calculate the results of the primary laws acting in combination and afterwards to test his hypothetical conclusions by observation. Of that method, he says, "astronomy furnishes the most perfect . . . example" (ii, 488). The astronomer, like the social scientist, is prevented from making experiments under conditions arranged by himself, but he can deduce from the primary laws of physical motion the probable combined results of those laws in the movements of planets and stars, and his hypotheses can be directly verified by subsequent observation. Mill says that astronomy "has become an exact science, because its phenomena have been brought under laws comprehending the whole of the causes by which the phenomena are influenced, whether in a great or only in a trifling degree, whether in all or only in some cases, and assigning to each of those causes the share of effect which really belongs to it" (ii, 432).

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[1] *Logic*, vol. i, p. xiii, 1875 edition.

Mill divides secondary social laws into "uniformities of co-existence" and "uniformities of succession" and, following Comte, assigns them respectively to the sciences of "Social Statics" and "Social Dynamics." Social Statics studies the behaviour of men in society at a given moment. Social Dynamics studies the course of human social behaviour in a period of time, or, in Mill's words, it is "the theory of Society considered in a state of progressive movement" (ii, 515).

A good instance of Mill's characteristically cautious use of his own method is contained in the passage of his *Political Economy*, in which he expounds the static secondary law on which the "less eligibility principle" of the celebrated Poor Law Report of 1834 depends. "In so far," he says, "as the subject admits of any general doctrine or maxim, it would appear to be this—that if assistance is given in such a manner that the condition of the person helped is as desirable as that of the person who succeeds in doing the same thing without help, the assistance, if capable of being previously calculated on, is mischievous; but if, while available to everybody, it leaves to everyone a strong motive to do without it if he can, it is then for the most part beneficial. This principle, applied to a system of public charity, is that of the Poor Law of 1834."[1]

As an instance of Social Dynamics, Mill takes

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[1] *Political Economy*, Book V, Chap. XI, 13.

Comte's "law of the progress of human knowledge" through the three stages "theological," "metaphysical," and "positive." "This generalization," says Mill, "appears to me to have that high degree of scientific evidence which is derived from the concurrence of the indications of history with the probabilities derived from the constitution of the human mind."[1] Herbert Spencer followed Mill's method with less caution and deduced from the primary laws of a simplified evolutionary psychology both the secondary "static" laws of his *Social Statics* (1850) and the secondary "dynamic" law of a necessary progression from a "military" to a "contractual" social system.

The full authority of the "laws of political economy" in British social thought may be taken as having lasted for about half a century—say from the British repression legislation of 1819 to the enfranchisement of the urban working-classes in 1867 and the shifting of political forces which then began. That authority was lost in the main not because British economists by "following the argument" reached and agreed on a more thorough analysis of their problem, but owing to the brute fact that social events refused to follow the course predicted by the classical economists.

On the occasion of Gladstone's proposed Irish Land Bill in 1881 Lord Salisbury declared in the

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[1] *Logic*, vol. ii, p. 528.

House of Lords that "political economy" had been sent "to Jupiter and Saturn."[1] Outside Britain the history of Europe, since 1859, is a grim refutation both of Comte's dynamic "law of the three states" and of Herbert Spencer's law of the necessary social evolution from the military to the contractual social type.

Tarde in his *Lois de l'Imitation* (1890) and Bagehot in his *Physics and Politics* (1869) attempted to substitute a new primary psychological "law of imitation," accompanied by an exaggerated Lamarckian conception of the biological inheritance of habit, for the Utilitarian pleasure-pain principle; but that attempt broke down, owing mainly to the absence of any experimental evidence that such a law existed.

During the last quarter of the nineteenth century E. B. Tylor's *Anthropology* (1881), and other "evolutionary" studies of primitive human culture encouraged the hope that the course of social events could be predicted from "dynamic" social laws. The then available evidence seemed to show that communities in different parts of the world, at different times, had independently passed through the three cultural stages of hunting wild animals and gathering wild fruits, of pasturing tame animals, and of settled agriculture; and had independently made and adopted the necessary inventions. By induction, therefore, from these events, social laws could be discovered and new events could be predicted from those laws. But further and more exact anthropological study showed that most of the facts relied on were due to the diffusion of inventions once made. In the twentieth century the "diffusionist" view of cultural history seems (in spite of the exaggerations of some of its advocates) to be taking the place of the "evolutionist" view.

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[1] Hansard, third series, vol. 264, p. 262.

The fate of "evolutionist" anthropology is only one instance of a growing belief among British thinkers that nearly all the facts on which the nineteenth-century "laws," both of sociology and of economics, were founded were due rather to the acquired habits of a particular population in a particular century than to innate dispositions which the members of each population share with men of other centuries and other countries. Mill, indeed, gave away the case for the practicability of using the methods of nineteenth-century physics for the discovery of social laws when, in his *Autobiography*, he described the "many points of sympathy" between himself and John Austin during the eighteen-thirties. Austin, according to Mill, "professed great disrespect for what he called 'the universal principles of human nature of the political economists,' and insisted on the evidence which history and daily experience afford of the 'extraordinary pliability of human nature.' "[1]

In the social difficulties which have followed the Great War, British economists have from time to time offered advice to cabinets or trade unions; but only a few leader writers and letter writers in the daily Press have appealed to any "law of political economy."

But during the last few years a controversy on method has divided British economists into two parties, and threatens to diminish very seriously the usefulness of economic studies for social judgment. The two parties may be conveniently spoken of as Analytic and Realist. The controversy which divides them arises partly from the breakdown of the "classical" science, partly from the recent development of an extremely delicate and valuable system of mathematical logic applicable to the growing mass of statistical material, and partly from the rapid growth both of a class of professional economic teachers and of a class of professional economic administrators and advisers.

The more "realist" economists tend to belong to the class of administrators who are daily engaged in the work of social judgment, that is to say of making or advising or inventing real decisions in the real world of to-day. They, like

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[1] *Autobiography*, p. 151.

Mill and the classical economists, form working conceptions of human psychology. But the psychological "uniformities" which they use for the purposes of prediction mainly concern the possible limits of human habituation and dishabituation—limits sometimes, as in the case of industrial fatigue, experimentally measured, and sometimes, as in the case of the potential taxability of a given population, roughly guessed at.

The evidence on which they base their predictions and advice mainly consists of observed changes during the recent past and estimated changes during the near future, in the habits of certain modern industrialized populations. Directly an economic thinker leaves the region of innate and unchanging human nature and enters that of socially inherited habit, his material may be radically modified by consciousness and volition; and perhaps the most striking "note" of the realist school is their clear recognition of that fact. Sir J. C. Stamp, for instance, who is a typical realist, when discussing the important economic short-time uniformity of the "business cycle," warns his readers against the assumption that that uniformity is of the same type as the physical and chemical "laws." "The elements," he says, "behave in the same way whether the human mind is studying them or not, whereas economic tendencies and principles change *because* they are being studied. Obviously so much in them as depends on human psychology, knowledge or will, undergoes profound change as the human mind becomes conscious of what it is doing. As soon as we have completely discovered and understand what governs the business cycle it will probably almost cease to exist."[1]

Another factor in the realist method of which the realist economists themselves may not be fully conscious and on which they are not likely to insist in their writings, though they do so in their choice of assistants, is that the success of the advice given by a responsible administrator and his fertility in invention depends not only on the logical coherence of his calculations, but upon his own "character" as a man—upon his emotional sensitiveness and practical wisdom. The administrator's work is "normative"; that is to say, he gives responsible advice which is intended to influence conduct and which involves a right choice of "ends" as well as an accurate calculation of "means." While the realist economist is likely to be an administrator, the analytic economist is likely to be a teacher. His daily work, as teacher, consists not in forming responsible decisions or advice but in so preparing students that they, or their students, or their students' students, may ultimately be helped in deciding or advising.

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[1] Sir J. C. Stamp, *Some Economic Factors*, p. 247, 1929.

One "note" of the analytic school is a recurring insistence that economics is not "normative." Professor L. Robbins, for instance, in his *Essay on the Nature and Significance of Economic Science* (1932), says that "Economics is entirely neutral between ends. . . . Economics is not concerned with ends as such" (p. 23). "Economics takes all ends for granted" (p. 31 n.). "Our *a priori* deductions do not provide any justification for saying that caviare is an economic good and carrion a disutility" (p. 98). Professor Robbins and other analytic teachers may have, and I know that some of them do have, passionate emotional preferences for one kind of human conduct over another, but they argue that those preferences belong to a different "universe of discourse" from that of economic science.

Another "note" of the analytic economists is their emphasis on logical method. They have been deeply impressed by the beauty and efficiency of modern scientific logic, and by the crude and dangerous logical fallacies of much "post-war" argument on tariffs, currency, and other economic problems. Robbins, therefore, uses language which often suggests that logical consistency is the only real subject of economic science, and that such a statement as "If $a = b$, then $a^2 = b^2$," in which the conclusion is contained in the premises, represents either the only kind of truth, or, at any rate, a higher kind of truth than the empirical statement that if an average man works more than eight hours a day his output per hour is likely to diminish.

Robbins says that "the analytics have always acknowledged the importance of realistic studies, and have themselves contributed much to the development of the technique of such investigations" (p. 105). But he confines the words "law" and "truth" to the uniformities of logical consistency. "The truth," he says, "of a particular theory is a matter of its logical derivation from the general assumptions of the science" (p. 106). "Economic laws describe inevitable implications. If the data they postulate are given, then the consequences they predict necessarily follow. In this sense, as Professor Knight emphasizes, they are as universal as the laws of mathematics or mechanics, and as little capable of 'suspension.' . . . The analytic method is . . . a form of applied logic, and, granted the correspondence of its original assumptions and the facts, its conclusions are inevitable and inescapable" (p. 110).

Speaking of the proposition "that a price fixed below the equilibrium point must result in an excess of demand over supply," he says, "In the last analysis . . . our proposition rests upon deductions which are implicit in our initial definition of the subject-matter of Economic Science as a whole" (p. 75).[1]

In reading this part of Professor Robbins's book I find myself reminded of a fifteenth-century Italian wood-cut showing Mondino da Luzzi (1276–1328) directing a dissection.[2] Mondino stands at his raised desk gazing out into space and demonstrating with appropriate movements of his fingers the coherence and higher truth of his syllogisms. Beneath him on the floor of the room an empiric assistant is opening a dead body.

Connected with Professor Robbins's preference for dialectical as compared with empirical truth is his apparent depreciation of empirical observations as the material of economic science. "Our *a priori* deductions," he says, "do not . . . inform us concerning the intensity of the demand for caviare or the demand to be rid of carrion. . . . To use Strigl's expressive phrase, from the point of view of economic analysis, these things constitute the *irrational* element in our universe of discourse" (p. 98).

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[1] It may be argued that Professor Robbins's method is merely the "concrete-deductive" method, i.e. the inductive discovery of "empirical" laws followed by deductive prediction from these laws, and verification by experiment or observation (as described, for instance, in Mill's *Logic*, Book III, Chap. XI, and Book VI, Chap. IX, 1875 edition). But anyone who compares Robbins's book with Mill's chapters will, I think, feel a difference between them. To Mill the original induction, the deductive stage, and the empirical verification are all equally "scientific." And Mill thinks of his laws as having a concrete content throughout, and never as propositions, the merely logical implications of which it is the duty of the scientist to discover

[2] Charles Singer, *From Magic to Science*, p. 94, 1928.

Professor Robbins imagines an objector asking whether it may not sometimes be convenient for an economist to deal quantitatively with this "irrational element." "Ought we not to wish to be in a position to give numerical values to the scales of valuation . . . ?" (pp. 98, 99). He answers that any attempt to do so would require us to enter upon "a field of investigation *where there is no reason to suppose that uniformities are to be discovered*" (p. 99, his italics). He takes the simplest kind of estimate of valuation—a calculation of the probable short-time effect of an order fixing the price of herrings, based on the course of demand for a couple of earlier years, and shows how many variables, fashion, transport changes, changes in the art of cooking, etc., would prevent such a calculation from being either exact or permanently valid. One may agree that such calculations have not the exactitude or permanence of a mathematical theorem. And yet thousands of such calculations are made every week by business men who conceive that in so doing they are not passing out of the economic "universe of discourse." "Within limits," Robbins admits, "such computations have their uses. . . . But they have no claim to be regarded as 'laws' " (p. 101). He applies his principle to the argument that social changes involving a more equal distribution of economic advantages will probably increase the total satisfaction received in a community, that (to take an instance of my own) fifty ten-acre public parks accessible to all the inhabitants of a great city will give more satisfaction than one five-hundred-acre park accessible only to one family. He admits that "In Western democracies we assume for certain purposes that men in similar circumstances are capable of equal satisfactions. . . ." But he says that any such assumption "can be justified on grounds of general convenience. Or it can be justified by appeal to ultimate standards of value. But it cannot be justified by appeal to any kind of positive science" (pp. 124–5). "The Law of Diminishing Marginal Utility . . . does not tell us that a graduated income-tax is less injurious to the social dividend than a non-graduated poll-tax" (p. 125). "Our methodological axioms involve no prohibition of outside interests! All that is contended is that there is no logical connection between the two types of generalization, and that there is nothing to be gained by invoking the sanctions of one to reinforce the conclusions of the other" (p. 134). As a voter, that is to say, the citizen may express his personal preference for the graduated income-tax, but he must not appeal to economics to support his decision.

Lenin or Stalin seems to be speaking when Professor Robbins goes on to say, "In the rough-and-tumble of political struggle differences of opinion may arise either as a result of differences about ends or as a result of differences about the means of attaining ends. Now, as regards the first type of difference, neither Economics nor any other science can provide any solvent. If we disagree about ends it is a case of thy blood or mine—or live and let live, according to the importance of the difference, or the relative strength of our opponents" (p. 134).

I have been a teacher for all my working life, and know that a teacher's method of dealing with his material must be in some ways different from that of a Member of Parliament making a speech or an expert official writing a memorandum. I know also that in a free country anyone may use a word like "science" in any sense which he chooses, provided that he defines his terms. But I have tried to avoid that which Francis Bacon, if he were now alive, might call "The Idol of the Chair," the tendency of the teacher to assume that a division of his subject-matter due to pedagogic convenience must necessarily represent a division in the real world of causes and effects. When a professor of economics says that economics "is not a normative science" or "economics is not concerned with ends," he means that for reasons which seem to him good he proposes, in giving lectures or setting examination questions or writing textbooks about economics, to ignore ends.

A hundred years ago, when Whately was professor of political economy at Oxford, he could "take ends for granted" because he and his students were agreed in supposing that the Paley–Bentham "pleasure-pain" scheme was a sufficient statement of ends in all economic behaviour. But since Whately's time two changes have occurred. The pleasure-pain calculus has gone, and nothing equally simple and equally agreed has taken its place. And the academic students of economics, instead of being a handful of future squires and archdeacons in search of general culture, are some thousands of young men and women who are being prepared for lifelong and exacting professions, and whose only chance of seeing the problem of human conduct as a whole may be during their few academic years. They will tend to ignore in their future thought that which is ignored in their academic course.

Professor Robbins, in an eloquent and moving passage at the end of his book, abandons for a moment his principle that economics has nothing to do with ends. "Economics," he says, ". . . relies upon no assumption that individuals act rationally. But it does depend for its practical *raison d'être* upon the assumption that it is desirable that they should do so" (p. 141).

At this moment in world history it is tragically desirable that men should act not rationally only but wisely; that they should use not reason only but the judgment of which reason is only one though an all-important element. Francis Place, in the bitterness of his experience as black-listed working-man and struggling tradesman, learnt the difference between the "hard-heartedness" of Hobbes, who insisted on facing all the logical implications of psychological laws, and the "cold-heartedness," which he feared for himself. Place nowadays would win a school scholarship and go through a university course in economics. Would he there learn that such a difference exists?

If economic students are not trained to base quantitative estimates of human values on the broad inexact similarities that exist among members of the human species; if they are not trained to use their acquired skill in helping people to settle problems of ends by agreement rather than by fighting or bargaining; above all, if they are not made conscious of the need for an intimate co-operation of their own emotion and reason in the process of social invention, we must obviously find a discipline which will include such a training even if we have to invent a new name for it.

CHAPTER SEVEN

THE IDOL OF THE LABORATORY

I DESCRIBED in the last chapter a tendency in modern economic thought to assign reasoning and emotion to separate "universes of discourse," and thereby to hinder their co-operation in the formation of economic policy. In this chapter I shall discuss the more general effect on social judgment of certain mental habits which are apt to appear in their present form among the professional students of physical science, and which Bacon might call "The Idol of the Laboratory."

"Natural" or "physical" science, since Bentham and Mill urged that its methods should be applied to the social sciences, has become a world-wide discipline, whose elastic but effective organization and success in discovering and co-ordinating hitherto unknown relations of causes and effects surpasses the dreams of the most enthusiastic thinkers of a hundred years ago.

In the natural sciences we no longer rely on the occasional appearance of a genius who, like Faraday, forces his own way into recognition, or on a monarch or noble who is ready to patronize genius, or on the mutual stimulation of intellectual curiosity in some group of friends, or in a short-lived local academy. No civilized State, however impoverished, now neglects to subsidize the development of natural science. The scientist who follows "whithersoever the argument leads him" no longer has to face the fear and hatred which met Anaxagoras or Bruno or Galileo, or even the milder social disapproval which was roused in my boyhood by the name of Darwin. A young scientist may, and too often does, waste some of the best years of his early manhood in mechanical academic "research," whose only result will be the saving of a little trouble to his professor. But he knows and feels that the purpose of his work is discovery, and any important discovery which he makes or helps to make is published in a few weeks throughout the civilized world and its methods are tested and its implications sought for in a thousand laboratories.

Those emotions which are stimulated in a modern natural scientist by his daily work are comparatively simple and do not hinder each other. The instinctive curiosity and aesthetic delight in the ordered pattern of the universe which guided the earliest discoveries of our stone-age ancestors have developed without inner contradiction into the scientific passion of the modern student, just as man's primitive delight in ordered sound has developed into the creative passion of Beethoven. And if the scientist's passion flags, his official post, his salary, and the needs of his family combine with habit and the expectation of his fellows to carry him over the "dead points" of his intellectual life. He may suffer weariness and disappointment, or be diverted from his course by loyalty to a teacher or school, or by jealousy of a colleague, or by the desire for fame or wealth; but he knows, and everyone else knows, that the man who accepts the name of scientist pledges himself to resist those things as the professional soldier pledges himself to resist panic. Within this world-discipline the natural sciences themselves are profoundly changing. All of them are drawing together. The distinction between chemistry and physics has disappeared. Matter is no longer distinguishable from energy; atoms have become universes; and the behaviour of the atom is studied by observation of stars and nebulae. The biologist no longer draws a sharp line between man and other animals, or between animal and vegetable life. And the biochemist tells us that when dealing with viruses and ferments he can no longer distinguish between chemical and vital activity.

Scientific inquiry is therefore penetrating into every region of human activity, and the methods of the laboratory are acquiring a constantly growing prestige.

But the world events of the last twenty years show that those methods have not yet enabled us to attain the art of judgment which would enable us to use our scientific knowledge for the general human good. We still, as Shelley said in 1821, "want the creative faculty to imagine that which we know," and still, as Shelley said, "the accumulation of the materials of external life exceed the quantity of the power of assimilating them to the internal laws of human nature."[1]

Civilization is still reeling from the effects of a war in which the whole organization of natural science was devoted to the destruction of human life and health and welfare.

Everyone, indeed, now admits our own urgent need of creative imagination. We must invent new patterns of living, and social invention requires as intimate a co-operation of emotion and reason as does poetry.

But it is not enough to know that we need creative imagination; we must, if we are to escape disaster, acquire the art of producing it in ourselves and our fellows. At present we seem to be slowly groping towards that art, too often by realizing when it is too late that we might have used it. Mr. Harold Nicolson was, during the weeks before August 4, 1914, a young official in the British Foreign Office under Lord Grey as

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[1] Shelley, *Defence of Poetry*, *Works* (H. B. Forman, 1880), vol. iii, pp. 135–6. (See Wallas, *Art of Thought*, Chap. V, 1926.)

Secretary of State, and his father (Sir Arthur Nicolson, afterwards Lord Carnock) and Sir Eyre Crowe were Grey's chief professional officials. The officials had "thought out" all the logical corollaries of British and German foreign policy and were ready with "scientific" plans for a defensive alliance with France and Russia. Grey was less consciously trying also to "feel out" the human significance of the whole position. "Grey," says Mr. H. Nicolson in his admirable *Life of Lord Carnock*, "stumbled and fumbled at places where Nicolson and Crowe saw clearly and incisively: their aim was to clear a way through the immediate thicket: his aim was to reach to something wider. But if he stumbled, it was because his eyes—those sad eagle eyes—were fixed upon an ultimate and distant ideal."[1]

Mr. Nicolson here describes the contrast as being between two processes of calculation, one seeking a solution to a nearer, and the other a more distant problem. He would, I believe, have given a truer psychological picture if he had used Shelley's contrast between the "Reason" which is "the enumeration of quantities already known" and the "Imagination," which is "the perception of the value of those quantities, both separately and as a whole."[2]

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[1] H. Nicolson, *Lord Carnock*, p. 333, 1930.

[2] H. B. Forman, Shelley's *Works*, vol. iii, p. 100.

And if ever statesmen learn the art of consciously harmonizing emotion and reason, it may be no longer necessary that those who seek for values as well as for causal relationships—for ends as well as for means—should "stumble and fumble."

During the writing of this book I have been conscious of a growing conviction that the formulation and practice of such an art of harmonization, with a hitherto unknown degree of success, is not an impossible human ideal. Before the end of the twentieth century, perhaps after more dreadful experiences than those of 1914 to 1932, there may begin to emerge signs of a "Wisdom," more difficult perhaps at first than the Wisdoms of Egypt and China and Greece and Palestine and Galileo and Newton, but more suited to our needs. And the essential element in that Wisdom may be the "due balance among the faculties" which John Stuart Mill strove to find.

The main obstacles to the creation and diffusion of such a Wisdom are, as I have said, the mental attitudes which hinder the co-operation of reason and emotion; and one of those mental attitudes is a habit of mind which often claims a monopoly of the word "science." Twelve years ago, in *Our Social Heritage*, I tried to describe what seemed to me a dangerous tendency among the thinkers in Russia and America who called themselves

Materialist or Behaviourist, and claimed to be supported by the authority of "science." These men took the measurable movements of human muscles and the chemical and physical processes which resulted in such movements as a complete account of human behaviour. In practice, I said, they tended to treat those motives, like anger and sex and greed, whose muscular results were most obvious, as being the only legitimate subject-matter of science, and to ignore as unscientific more complex motives such as pity and kindness or even the scientific curiosity which they took for granted in themselves. The present tendency among writers of this school seems to be to treat the facts and tendencies disclosed by physical measurement as alone "objective" and "real," and all conscious emotional preferences of any kind as unreal "epiphenomena."

Professor P. A. Sorokin, for instance, of the University of Minnesota, published in 1927 an essay (accompanied by a useful bibliography) on *Sociology and Ethics* in which he says, "As poetry represents a kind of social thought quite different from science, judgments of valuation represent a kind of social thought quite different from the scientific judgments."[1]

The particular type of emotional preference of which Sorokin was writing is the traditional sense of moral obligation. " 'Love thy neighbour,' " he says, " 'kill thy enemy,' and other similar expressions are neither true nor non-true. . . . Natural science and other real sciences study the reality as it is, irrespective of whether it is 'good' or 'bad.' "[1]

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[1] In the volume on *The Social Sciences and their Interrelations*, edited by Ogburn and Goldenweiser, pp. 312, 313.

Some of the writers of this school use the word "public" for easily measurable and therefore easily communicable and repeatable physical events, and the word "private" for those less easily measurable and less communicable events which are states of consciousness described by those who experience them. Professor L. Hogben, for instance, defines "the public world of science" as "the external world of physics enlarged to take in the subject-matter of biology." "The private component," he says, "offers no profitable basis for discussion," and he adds that "to the private worlds belong values."[2] "This distinction," he tells us, "is not abolished by the fact that the temperaments of some philosophers lead them to apply the term *real* to the private, and *imaginary* to the public component."[3] Between the introspective psychologist and the behaviourist "there is," he says, "a great gulf fixed, as old as that which separates the philosophy of Plato from that of Democritus."[1] ". . . Science can supply us with aviation, broadcasting, and twilight sleep. Transcendental philosophy can only offer us the good life."[2]

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[1] In the volume on *The Social Sciences and their Interrelations*, edited by Ogburn and Goldenweiser, p. 311.

[2] L Hogben, *Nature of Living Matter*, p. 301, 1930.

[3] Ibid., p. 247.

Under the influence of his enthusiasm Professor Hogben even makes statements about the relation between his "private" and his "public" worlds, which are capable of rigidly materialist verification or refutation. "Our expectation of living," he says, "has increased as we have learned to worry less about the good life and more about the good drain."[3] The "expectation of life" among European men of military age during the years 1914–20 would undoubtedly have been increased instead of diminished, if the statesmen of Europe had "worried" rather more than they did in the preceding ten years about that pattern of thinking and feeling the adoption of which might have brought them somewhat nearer to Nietzsche's ideal of a "good European."

In a review in the *New Republic* of November 5, 1930, of a *History of Experimental Psychology*, by Dr. E. G. Boring, the reviewer (Mr. Leonard Carmichael) prophesies a rapid growth of the science of psychology, and adds: "This development, however, must be in the hands of scientists who are almost harshly empirical and who, like Dr. Boring himself, yield to no emotional desire to leave the laboratory in order to save society."

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[1] Inaugural Address, *Economica*, p. 14, 1931.

[2] *Nature of Living Matter*, p. 221.

[3] Ibid., p. 236.

It is easy to sympathize with the rage with which young American psychologists react against the edifying psychological generalizations which characterized the nineteenth-century sociological courses in American universities and their insistence upon evidence for every psychological statement. But psychologists and their students will have to use judgment both as thinkers and as voters in the "saving" of society "outside the laboratory" from its present dangers. A harshly empirical psychology may mean a psychology which deliberately neglects some of the most important elements in its own problems.

Sorokin and Hogben are systematic thinkers determined to argue out the full implications of their position. Those of us who disagree with them may hope either to convert them or to be converted by them. But the influence of that conception of "science" which they state in its most extreme form spreads far beyond the laboratories of experimental psychologists and physiologists, and constantly tends to introduce a "harshly empirical" element into the intellectual-emotional process of social judgment.

Not much harm and not much good is likely to result from a merely verbal controversy as to the exact meaning to be given to the word "science," whether, for instance, the work of a British sociologist is "scientific" or not, when he is trying to form a "judgment of valuation" as to which of two constitutions for India is most desirable, or whether a proposed change in the divorce laws would do good or harm. But a great deal of harm will result if a young thinker, because he is told that such efforts are "unscientific," is discouraged from any attempt to make them.

General Smuts gave, on November 30, 1929, to an audience of students at Newnham College, Cambridge, an eloquent address in which he said: "The mature sober impartial spirit of science . . . may yet become the governing factor in our human organization, whether that organization will take the form of government or something better than government which may evolve in course of time. As justice is said to be blind, so science is deaf and blind to illusion and passion; it deals with facts on their merits. . . . The application of the true scientific spirit to human affairs, if it were humanly possible, would mean such a reign of justice and fair play on earth as only poets have dreamt of."[1]

General Smuts is obviously right in believing that the conception of science can be made a powerful political force in a modern industrial community. Every voter who has passed through an elementary school or has used modern appliances in his work has now some conception of the methods of experimental science and has profited by its results. The twentieth-century artisan and machine-tender has learnt something at school, and more at the bench, about scientific principles. He is often grateful for the system that preserves his children's health and increases the national output of wealth, however unfair he may believe the distribution of that wealth to be. Even the English country labourers, the descendants of the men who in the Middle Ages were frightened by stories of Friar Bacon and Friar Bungay, are now discovering that science can improve the seed they sow and protect their wheat from rust.

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[1] *Africa and some World Problems*, pp. 167–9, 1930.

But though scientists may be wise, science as at present studied is not co-extensive with wisdom, and a conception of science as "deaf and blind to passion" does not offer to the voter or statesman a sufficient guide towards what General Smuts calls "justice and fair play," or to the merits of the "facts" to which he refers.

The "merits" of social facts include their value and significance in the realm of feeling. General Smuts is himself a member of the white minority in South Africa who are committed, it seems, irrevocably to a policy of "scientific" government, based on the indefinite continuance of serfdom for the Kaffir majority. And future historians may record that that minority would have been more successful in producing "a reign of justice and fair play" if they had been less "deaf and blind" to any emotion of sympathy with their coloured fellow-men.

The social effects of the "laboratory" attitude may be not unlike the effect of the Laws of Political Economy on English manufacturing policy a hundred years ago, or of the Marxist dialectic on Russian social administration to-day. But when American and British Behaviourists discuss social policy one often feels that they are substituting a metaphysical idea of determinism for the confident working generalizations of Ricardo or Marx or Spencer. The nineteenth-century economists and sociologists believed that social laws had already been discovered, and took the risk of predicting their results. Herbert Spencer was only exaggerating the mental attitude of his school when he wrote in 1851, "The ultimate development of the ideal man is logically certain—as certain as any conclusion in which we place the most implicit faith; for instance that all men will die."[1]

The laws of political economy have gone and, with them the sense of "scientific certainty" in social prediction. Professor M. R. Cohen wrote in 1927: "If . . . social phenomena depend upon more factors than we can readily manipulate, the doctrine of universal determinism will not guarantee an attainable expression of laws governing the specific phenomena of social life."[1]

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[1] *Social Statics*, Chap. II, quoted in Bury, *Idea of Progress*, p. 338.

The growing complexity of social organization has already brought the fully industrialized nations of the world into Professor Cohen's hypothetical position. Even if the doctrine of universal determinism is true, we cannot now deduce from it reliable predictions as to the future course of social events. But the determinist mental attitude may remain as a vague background for the ideas associated with the word "science"; and may result in a half-conscious and half-hearted acceptance of the doctrine of the book of Ecclesiastes or the Taoist literature, that everything which has happened in the past had to happen, and that nothing which any one of us can do will greatly alter that which will happen in the future. In America this half-hearted fatalism often presents itself in a strange form as a plea for political democracy against political leadership. A reader of American sociological literature soon gets bored with the pun which contrasts the scientific reality of the corporate action of the "great many" with the romantic dream of the influence of "Great Men."[1] And the "anti-great-man" attitude unfortunately supports and is supported by the deep-rooted American tradition that democracy must be based on equality and that the conception of equality must assume, however contrary that assumption may be to obvious facts, that in intellectual power and force of will every citizen is or ought to be equivalent to every other citizen.[2] I can never forget a conversation to which I listened in a New England summer camp a few years ago between the clever mothers of two exceptionally clever boys. They both regretfully agreed that in an American high school supernormal ability or knowledge or keenness was an almost certain cause of unhappiness, and that they, as wise mothers, ought to restrain their sons from knowing more or working harder than the average of the school.

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[1] See Ogburn and Goldenweiser, p. 461.

The change in American philosophy which has helped to produce this mental attitude may be illustrated from Mr. J. Truslow Adams's admirable history of the Adams family. On December 3, 1845, John Quincy Adams, at the age of seventy-eight, carried through the House of Representatives a motion (restoring the right of petitioning Congress) for which, during the preceding nine years, he had struggled almost unaided against an overwhelming majority.[1] In 1907 his grandson, Henry Adams, who had come strongly under the influence of what Sorokin calls the "real sciences," printed privately *The Education of Henry Adams*, in which, as his biographer sums up his argument, he expressed the opinion that history "was clearly and emphatically not a science unless its phenomena could be made to fall into patterns that would permit of establishing mathematical formulae that would allow of a fairly definite predictableness."[2] Henry Adams may have influenced American history in the future by his insistence, fantastic as it sometimes was, on certain relations of cause and effect. But he did not leave behind him, like his grandfather, an example of that vital co-ordination of reason and emotion on the attainment of which the future of American civilization depends.[3]

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[1] See, e.g., A. M. Schlesinger, in W. Gee, *Research in the Social Sciences*, p. 219.

[2] See Dr. Abraham Flexner's admirable book, *Universities, American, English, German* (Oxford University Press, 1930).

The dogma of determinism does not, of course, always create a submissive acquiescence in things as they are. The Calvinist dogma of predestination helped to produce the ferocity of the Fifth Monarchy men. And Stalin has shown that as ruthless an energy may be inspired by the determinism of the Marxian theory of history as by the Moslem belief that every action of the elect is willed by God. But fanaticism may distort the balance of wise judgment as dangerously as fatalism.

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[1] James Truslow Adams, *The Adams Family*, pp. 215–33, 1930.

[2] Ibid., p. 346.

[3] In the same chapter Mr. J. T. Adams says of Brooks Adams (Henry's brother) that he "became convinced that conscious thought had played a negligible part in the historic process, and sought to link the latter up to the physical universe" (ibid., p. 339).

In British political thought the doctrine that mass-psychology is guided either by the "voice of God" or by "manifest destiny" has never had the same power as in America. But in August 1931 I seemed to observe among some non-Marxian as well as Marxian members of the British Labour Party a tendency to ascribe the dislocation of our national economic system to inevitable and impersonal "world-causes." And the ascription seemed half-consciously to blunt the edge of their own readiness to undertake the agony of social invention.

CHAPTER EIGHT

RELIGION AND JUDGMENT

I HAVE argued that one of the hindrances to the intimate co-operation of thought and feeling in the process of judgment is a mental attitude which is associated with the method of laboratory science and which, by separating "reasoning" and "science" from "emotion" and "value," tends to produce a distorted picture of the human personality.

In this chapter I shall argue that a mental attitude which is now often associated with the Christian religion tends to make a similar separation with a similar distorting effect; the difference between the two being that the "scientific" attitude tends to treat the world of value as unreal, and the "religious" attitude to treat the world of science as unreal. In religion, as in science, the fully logical position is stated only by a few professed thinkers. But the movement which those thinkers initiated has a wide influence on contemporary religious thought.

The most distinguished representative of the religious form of this "separatist" position is Professor Arthur S. Eddington, in his book *The Nature of the Physical World* (1928) and in the

Swarthmore Lecture on *Science and the Unseen World* (1929). Eddington is both a great physicist and a loyal member of the Society of Friends; and he apparently includes himself among those who "want security that faith, and worship, and above all love, directed towards the environment of the spirit are not spent in vain."[1]

Eddington agrees with the statement which I quoted from Sorokin in the last chapter that "judgments of valuation represent a kind of social thought quite different from scientific judgments." He divides "the domain of experience" into "metrical" and "non-metrical." Only a "selected portion" of experience is, he says, "capable of that exact metrical representation which is requisite for development by the scientific method." Among "those parts of our being unamenable to metrical specification" he includes, "meaning," the sense of "ought," "feelings, purpose, values" and even "the feelings that we have of gladness and melancholy," "humour," and the sense of beauty.[2]

Eddington's "non-metrical" world is therefore the same as Professor Hogben's "private" world, and Eddington places in his non-metrical world and excludes from his metrical world "consciousness, not . . . as a bundle of sense-impressions, but as we intimately know it, responsible, aspiring, yearning, doubting, originating in itself such impulses as those which urge the scientist on his quest for truth."[1] All those things are, he says, part of "the spiritual substratum which in so far as it is known to us in consciousness is essentially non-metrical."[2]

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[1] *Science and the Unseen World*, p. 42, 1929.

[2] See *Nature of the Physical World*, pp. 271, 275, 321-3, 329, 345.

When we ask Eddington by what means we are to find guidance in the all-important non-metrical world, he refers us to "the mystical outlook," "mystic thought," and the experience which comes to himself and other members of the Society of Friends "in our silent meetings." "We do not," he says, "send missionaries to the blind to persuade them that it will be to their benefit to believe that a world of light and colour exists for other men gifted with eyes. We should not argue with the blind man who maintained that sight was an illusion to which some abnormal people were subject."[3] If those of us who do not belong to the Society of Friends still press him for such help as blind men may hope to receive from the sighted while feeling their way through the darkness, he only offers us the disheartening answer that "There is as yet no approach to a general system of inference on a non-numerical basis."[1]

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[1] *Science and the Unseen World*, p. 26.

[2] *Nature of the Physical World*, p. 282.

[3] *Science and the Unseen World*, p. 28–31.

A working social thinker will probably not attach much importance to Eddington's distinction between the "metrical" and "non-metrical" domains of experience. Every modern educational administrator, for instance, makes "metrical" estimates of the relation between "the feelings that we have of gladness and melancholy" and certain changes in the average weight of school children, or their average annual loss of school hours by sickness. Psychologists and biologists are constantly turning our feelings of "gladness," "humour," and the rest from comparable but less metrical material into more metrical material, without apparently removing them from the world in which the scientist has light to the world in which he is blind.

What is important to a social thinker who goes to Eddington for advice is his denial that "there is as yet" any "approach to a general system of inference on a non-numerical basis." The context shows that Eddington is not here speaking of a habit of mind into which some scientists have slipped, and from which they can recover. He is speaking of a psychological fact. For him, as for Sorokin and the Behaviourists, scientific reasoning calculates results without preference for one result over another. Directly preference and choice enter, reason has to resign in favour of "another faculty of consciousness."[1]

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[1] *Nature of the Physical World*, p. 270 n.

That "other faculty" is the mystic experience which comes to the Society of Friends in their silent meetings; and men have learnt its strength and weakness during thousands of years from prehistoric seers, Egyptian priests, Delphic priestesses, Sufist and Hindoo ascetics and Christian saints. Millions of young Indians are to-day guided by Mr. Gandhi, and Gandhi is even more consistent than Eddington in separating the two "faculties of consciousness." The London *News Chronicle*, for instance, of February 23, 1931, prints an interview in which Gandhi was asked what he would do if violence were committed by the Congress Party. He answered, "I cannot say what I should then do, for in all such things I am not guided by reason but by instinct—in other words, by the inner voice, and one never knows where that voice will lead you." India may have cause to regret for centuries Gandhi's refusal to allow his "reason" to co-operate with his "instinct."

There is a curious passage in Eddington's Swarthmore Lecture in which he seems suddenly to realize the identity of his plea for the separation of science and value with that of the extreme

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[1] See *Science and the Unseen World*, p. 46.

Behaviourists, and to shrink from the consequences of that identity. But this passage, while it is inconsistent with the rest of the book, is equally unhelpful to those who desire guidance in the practical exercise of social judgment. "I am not," he says, "able to agree entirely with the assertion commonly made by scientific philosophers that science, being solely concerned with correct and colourless description, has nothing to do with significance and values. If it were literally true it would mean that, when the significance of our lives and of the universe around us is under discussion, science is altogether dumb. But there is this much truth in it. If we are to present science as a self-contained scheme, owing nothing to any judgments we may have formed by methods for which science does not take responsibility, then no doubt significances must be ruled outside its scope. This may be called the official attitude of science. Officially the scientist is just an adept at solving certain problems; he has no curiosity as to how these problems have come to be set; it is a complete surprise to him that mankind, struggling after the eternal verities, should take serious note of his pastime. But I think no one would venture to speak to a public audience on any scientific topic unless he were prepared to transgress beyond the official attitude. Imagine a speaker on evolution presenting a purely colourless description of the sequence of living forms and the struggle for existence, without ever hinting at an underlying significance for us of this change in our belief as to man's place in nature."[1]

But in every other paragraph of these two books, Eddington uses the word "science" to mean what he here calls "official" science. And though he here tells us that he sometimes finds himself, when lecturing on science, bringing in values, he gives us no hint as to how those values are connected with his reasoning or whether his public mention of them is merely due to a casual and momentary intrusion into the "scientific" domain of experience of "another faculty of consciousness."

Rudolph Otto, in his *Idea of the Holy*,[2] also argues from the religious point of view for a separation of emotion from reason. He bases his argument partly on the history of religion and partly on a psychological position which is already (as I argued in Chapter I) becoming obsolete. Otto assumes that in the normal course of human conduct emotion is separated in time from the process of associative thought which afterwards "rationalizes" emotion by ascribing it to a cause.

The emotion with which Otto is specially concerned is the "numinous" feeling of "dread" or

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[1] *Science and the Unseen World*, pp. 38, 39.

[2] Translated by John W. Harvey, 1923.

"uncanniness." Both in the individual and in the tribe numinous dread, he believes, normally precedes any idea of a cause for it. "It is this feeling," he says, "which emerging in the mind of primeval man forms the starting-point for the entire religious development in history" (p. 15). "On the lowest and earliest level of the religion of primitive man . . . the numinous consciousness is but an inchoate stirring of the feelings. . . . Representation of spirits and similar conceptions are . . . one and all early modes of 'rationalizing' a precedent experience [of dread] to which they are subsidiary" (pp. 26–7).

The special form of rationalization which, according to Otto is characteristic of religious history, is "moralization." The wrath of God to which the savage first ascribes his feeling of dread "has no concern whatever with moral qualities" (p. 18). It is only later that the moral idea is introduced, and that this "fear" of the wrath of God is connected with that of his "righteousness in requital" and his power of punishing "moral transgressions" (p. 19). As the religious life develops the primitive "daemonic dread" is more and more filled with rational and ethical meaning. And "the consummation of that process tending to rationalize, moralize, and humanize the idea of God" is found in the Gospel of Jesus (p. 85).

Otto illustrates this change by comparing it with the process by which, in an individual human being, prerational sex-feeling becomes filled with rational (though not necessarily ethical) meaning. The "sublimation" of sex-feeling is "only brought into existence as the reproductive instinct passes up out of the merely instinctive life, penetrates the higher humane life of mind and feeling, and infuses wishes, cravings, and longings in personal liking, friendship and love, in song and poetry and imaginative creation in general" (p. 47).

Music again, purely as music, "arouses," he says, "a blissful rejoicing in us, and we are conscious of a glimmering, billowy agitation occupying our minds, without being able to express or explain in concepts what it really is that moves us so deeply . . . but the rise and fall and manifold variations of this experience exhibit . . . definite if fugitive analogies and correspondencies with our ordinary non-musical emotional states, and so can call them into consciousness and blend with them. If this happens, the specific music-consciousness is thereby 'schematized' and rationalized, and the resultant complex mood is, as it were, a fabric, in which the general human feelings and emotional states constitute the warp, and the non-rational music-feelings the woof. The song in its entirety is therefore music 'rationalized' " (p. 49).

Otto is a Lutheran professor of theology in the University of Marburg, and the special importance of his book is that it represents a form of Christian apologetic which is certain to become more general in the future, now that more emphasis is being laid by theologians on religious experience and less on the historical evidence for revelation. The apologetic argument of the book seems to be that, because feeling exists, as a Greek philosopher would say, "by nature," and reason by "convention," feeling is both prior to and more divine than reason, and its authority over belief requires no support from rational argument.

In so far as this position involves a statement of necessary psychological fact I believe, as I have said above, that it is based on an entirely obsolete psychology. Ever since men and their anthropoid ancestors developed their present forebrains it has been as "natural" to them to think as to feel. It was, for example, as natural for Köhler's chimpanzee in the presence of the bananas and the bamboos[1] to notice the significance of the situation as to feel the vague stirring of hunger.

Otto himself gives an instance from William James's *Varieties of Religious Experience*, where the numinous feeling and the simultaneous rationalization of that feeling by inferring from it the presence of a divine personality were equally natural, and equally convincing aspects of one experience. The witness, a clergyman, says: "The perfect stillness of the night was thrilled by a more solemn silence. The darkness held a presence that was all the more felt because it was not seen. I could not any more have doubted that He was there than that I was. Indeed, I felt myself to be, if possible, the less real of the two."[1]

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[1] See above, p. 22.

It is true that in some of the almost pathological instances of religious emotion which Otto quotes from Isaiah and St. Paul, the feeling of awe seems to have preceded any impulse to find a rational significance for it. But on Otto's own showing, if we are to attach special importance to such instances we must attach the same importance to cases where feelings of sex or musical emotion preceded rationalization. And in civilized life instances where thought precedes feeling in full consciousness are at least as frequent as those in which feeling precedes thought.

Meanwhile, just as every curate can now preach that Mendel has "exploded evolution" and a *Church Times* reviewer now tells us (1932) that "so far as Einstein proves to be right, the court which condemned Galileo will be shown to be at least as near the truth as was their victim,"[2] so we shall before long be told from the pulpit that Otto has superseded the authority of reason in the sphere of religious belief.

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[1] *Varieties of Religious Experience*, pp. 66, 67. Otto, p. 23.

[2] *Church Times*, May 20, 1932.

But the most important present effect upon social judgment of the religious separation between reason and values is perhaps to be found neither among philosophers attempting to give a consistent account of the universe, nor among professional apologists for a revealed and unchanging creed, but among statesmen whose affection for religious tradition prevents them from pushing reasoning to its logical and therefore to its full emotional conclusion. Mr. Baldwin, for instance, is always for me one of the most lovable and most British figures in British politics. In the curiously sincere House of Commons debate which took place in December 1927 on the proposed new Anglican Prayer-book, he said: "The position of the Church of England may sound and may look illogical. We are not a logical nation, and the Church of England could not exist in any other country but our own . . . it is a Church essentially of comprehension and a Church of compromise, and in it the devotional instinct and rational instinct may each, by its peculiar quality, live and grow together side by side."[1]

In Mr. Baldwin's political, as well as his theological mind, "devotional" and "rational" instincts sometimes "live side by side" instead of co-operating. On April 22, 1929, for instance, when he made his broadcast appeal as Prime Minister at the General Election, he said, "We must work while we have the opportunity, so that, generation by generation, our people may be more fitted intellectually, physically and morally for the enormous responsibilities which Providence has cast upon them." He explained these responsibilities by referring to the British Empire with its "60 millions of our own race, but, above that 400 millions of men of every colour, every race, every creed, every kind and degree of civilization. Their welfare, the peace of that whole quarter of the earth depends on the maintenance of stable government and wise statesmanship on the part of the British—a most tremendous thought."[1]

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[1] *The Times*, December 16, 1927.

"Wise statesmanship" in the British Indian situation will depend on the degree of clearness with which British statesmen realize, both intellectually and emotionally, the probable consequences of their actions. But that realization will be weakened and confused if they allow their devotional instincts to tell them that Providence, acting through the persons of Clive and Hastings, has cast on them the responsibility for the maintenance of stable government in India.

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[1] *Listener*, May 1, 1929.

The disastrous effects of the war of 1914–18 might have been halved if Kaiser Wilhelm had been able in 1916 to make the intellectual-emotional effort required for a whole-hearted acceptance of the policy of evacuating Belgium. And undoubtedly his religious conviction that the German Army, because it was in Belgium, was there by the will of God, helped to make such an effort impossible for him. It may be best for us either to stay in India or to go; but the courage and consistency of our judgment on that question will be lessened if we half believe that the decision has already been made for us by Providence.

If, indeed, one learns that a statesman or writer is a sincere Christian, one finds it nearly as difficult to prophesy how he will act as it would be if he were a consistent Behaviourist. Wilberforce and the other men who destroyed negro slavery were sincere Christians; Lord Shaftesbury, as a Christian leader, carried through the first effective Factory Acts; Lord Irwin went to India as Governor-General in 1926, and his religion was of great value in enabling him to establish a momentary contact with some of the Indian Nationalists. When, however, both the practical efficiency and the emotional force of human judgment depend on an intellectually valid estimation of a difficult situation, the votes given, say, by the bishops in the House of Lords or by Christian philanthropists in the House of Commons would indicate that their social judgment was often less sound than that of their less Christian neighbours. Wilberforce supported in 1799 a law against working-class trade combinations which no one to-day would defend; and after 1815 he was in favour of the Six Acts and all the worst measures of Tory reaction. Shaftesbury denounced the mild Liberalism of Seeley's *Ecce Homo* in 1866, and fastened by his fanatical energy the gloomy idleness of the British Sunday upon a hesitant nation for a generation after his death.

Lord Halifax, the splendid old Anglo-Catholic leader who is Lord Irwin's father, once described the process by which it was decided that Lord Irwin should accept the offer of the Indian Viceroyalty. "He came to see me, and asked my advice. . . . I said to him: 'you must not study the consequences, as they are out of our hands,' and told him that the only thing that we could do was to try and find out what God really intended us to do, and that to do that we should both have to say a great many prayers. So we both straightway went to church, and when we came out I said to Edward, 'I think you really have to go,' and he said, 'I think so too.' "[1] Lord Irwin must have been gathering knowledge about India and reasoning on it for many weeks before this event, and it may be that in that country church he went through a creative experience of "imagining," as Shelley said, "that which he knew." But his father's advice not to "study the consequences" might have been as dangerous to India as Gandhi's advice to "follow instinct and not reason."

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[1] *Sunday Times*, June 21, 1931.

Milton, in perhaps the most beautiful description of the process of creative imagination that has ever been written, puts prayer in the foreground. The poem which he contemplates is not, he says, "to be obtained by the invocation of Dame Memory and her Siren Daughters; but by devout prayer to that Eternal Spirit who can enrich with all utterance and knowledge, and sends out his Seraphim with the hallowed fire of his altar to touch and purify the lips of whom he pleases: to this must be added industrious and select reading, steady observation, insight into all seemly and generous arts and affairs."[1]

If, however, Milton had accepted with open-eyed reason and sympathy his own responsibility for the direction of his mind, his poem might have had a more universal appeal; and perhaps, as adviser to Cromwell, he might then have seen more clearly than he did the conditions to which any government must conform which the English people will find permanently tolerable.

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[1] *The Reason of Church Government urg'd against Prelatry,* Book II, quoted by L. Pearsall Smith, *A Treasury of English Prose,* p. 81.

But the Idol of the Pulpit and the Idol of the Laboratory—the present hindrances to effective social judgment arising from the traditions of organized Christianity and the metaphysical assumptions of professional scientists—may both prove to be less important for the future development of social policy than the growth of a working philosophy among thinkers who are neither members of the Christian Churches nor passive watchers of test-tubes and balances.

Anyone who looks at a map of Christendom, from Russia on the east to California on the west, or who examines such statistics of Church attendances as have been published, must realize that organized Christianity is losing ground, rapidly in some regions—Russia, for instance, or Spain or Mexico or Protestant America—and more slowly in others. Already for a majority of the thoughtful members of the generation now growing up the dogmas which tormented their forefathers—the inspiration of the Scriptures, the authority of the Church, the sinfulness of doubt, divine predestination or eternal punishment—do not exist. That majority will certainly be larger in the following generation, and with dogma will go the half-conscious intellectual and emotional hesitations which are the ghosts of dogma. Our grandchildren will thus be as free as were the followers of Aristotle or Confucius to think and feel about the universe, and will be possessed, owing to the patient labours of scientific specialists, of a body of tested knowledge extending in time and space far beyond the most daring speculations of a hundred years ago.

What will be their prevailing conception of the universe and what will be the effect of that conception on their social judgment? They may drop the Palestinian mythology as easily as a worn-out garment, but what will happen, for instance, to that belief in personal immortality with which so many of our ethical traditions are entwined? Plato, in his best years, thought and felt as freely about the universe as ever man did, and Plato was convinced of the immortality of the individual soul. Modern knowledge, however, forces us to recognize in a new way the continuity of existence.

If a modern man believes that the particular combination of "genes" from his maternal and paternal ancestry which constitutes the personality with which he is born is immortal, he can hardly prevent himself from believing in the personal immortality of the anthropoid apes. If an ape is personally immortal, how can we deny that a dog or a jelly-fish or a bacillus is also immortal? Or if each of us is immortal, would we not have been immortal if we had died in our mother's womb? If the generative cells which combined at the moment of our conception had perished like countless millions of millions of others before they were combined, would each of them have been immortal? If we answer that that which is personally immortal is only temporarily connected with the visible organism and will continue to exist after the visible organism has decayed, must not that also be true of the personally immortal element in the ape or the jelly-fish or of the uncombined spermatozoon?

We may never know whether the consciousness of an adult human being and the lesser consciousness or potential consciousness of the infant and the ape and the bacillus may be related to some larger principle which gives meaning, and even something which we might call purpose, to the universe. But such a relation is not what Plato and the Church meant by the immortality of the soul, and cannot be made, as Plato and the fathers of the Church made it, the foundation of a doctrine of personal rewards and punishments.

Our grandchildren, then, must apparently adjust their thinking and feeling to a universe in which personality is not immortal. But that conception of the continuity of existence which is fatal to a belief in personal immortality may also prove fatal to the dogma of materialist determinism.

The "doctrine of philosophical necessity" which weighed upon Mill's youth "like an incubus" and which made Carlyle see the universe as a dead indifferent steam engine, seemed to be an inevitable corollary of the atomic conception of matter from the time of Lucretius to the nineteenth century.

If a hundred years ago a young thinker really believed that the universe consisted of an arrangement of small round billiard-balls over which human consciousness flickered as the shadow of a tree flickers over a stream, and with no more influence on events, his belief might for him "make a goblin of the sun." If he tried to adjust his thoughts and emotions to that belief, he was undertaking a task little easier than that of the loyal followers of St. Augustine who had to adjust their thoughts and emotions to a universe in which the vast majority of the human race had been divinely predetermined to eternal torture. The effort of adjustment might either kill human kindness in him or force him to abandon reason.

But it is one of the greatest benefits which recent science has given to mankind that a social thinker is no longer required by what he knows of physical science to retain the Newtonian conception of the atom. There is nothing in the twentieth-century conception of the atom, not as a homogeneous billiard ball but as a system in which the distinction between matter and energy or between life and non-life has disappeared, to make it difficult for us to believe that consciousness and will are real factors in the universe having a real relation to events. There is nothing in modern physics and chemistry to prevent the social student from believing and feeling that he is an agent and not a mere spectator of action; that his problem may be "What shall I choose to do?" and not merely "What is it that must happen?"; and that all the knowledge which he can gain of causes and effects, whether in the world outside him or in the habits and passions and associations of his own personality, may strengthen instead of paralysing the reality and efficiency of his choice. All that it is necessary for him to assume is that both consciousness and will vary, like everything else in the universe, from more to less.

There remains the difficulty of the "statistical" predictability of human actions—the fact, for example, that though we cannot predict that a particular human being will commit suicide, we can predict with rough accuracy the number of those who in a given community will do so next year. But here again it is only necessary for us to recognize variation of more and less in creative volition. Darwin, for instance, watched for years in his meadows at Down the sinking of a thick layer of burnt marl and cinders into the worm-inhabited turf. A physicist could now predict with high accuracy the gravitational pressure of the sinking marl. A bacteriologist or botanist could predict less certainly the orderly process of decay of the mould and the growth of the grass. A zoologist could predict still less certainly the behaviour of the worms and of the thrushes which live on them; and the best available psychologist could only predict with a high degree of uncertainty how long Darwin would leave the marl undisturbed, and with a still higher degree of uncertainty the conclusions which he would draw from his experiment.

Predictability or unpredictability may, it is of course conceivable, have nothing to do with consciousness and will, and may depend solely on the greater or less complexity of physical causes and our greater or less knowledge of them. The shape of the next ripple in a stream is for us less predictable than our neighbour's fully conscious vote at the next election; yet we know that the shape of the ripple is due to causes which, if we took enough trouble to ascertain them, would enable us to predict it with any degree of accuracy which we desired. But the inverse correlation of consciousness with predictability may be due to something real and important; and since we can draw no line between man and the rest of the universe, that something must possess universal significance. One may think it likely that anthropomorphic terms like "free will" are misleading, and yet may feel released from the inertia of materialist fatalism.

When Mr. Brandeis and I were looking at London from Parliament Hill and watching the spread of the houses up the sides of the Thames Valley, any personal decision by a single man or woman among the London millions might appear to be a statistically negligible factor in that process. But the size and shape of London as we saw it, and still more the size and shape of London fifty years hence, largely and obviously depend on the fact that in 1818 a tailor called Francis Place and in 1876 a lawyer's clerk called Charles Bradlaugh, neither of whom were men of very outstanding intellectual genius, undertook, by decisions which they themselves could not have predicted, neo-malthusian propaganda.

There may already be in London or Paris or New York boys and girls preparing for examinations or staring at the dull confusion of the streets who will be remembered centuries hence as leaders in a new effort to formulate and make conscious the idea of a harmony between clear thought and warm feeling. And their effort, in spite of failures and mistakes, may by that time have influenced the policy of nations and have turned to new purposes the powers of men and machines.

Those who still insist on the necessity of choosing between irrational emotion and "harshly empirical" science may declare that any such attempt to create a working philosophy of our time must fail for want of the driving power which has been shown by national ambition or commercial greed, or the promise of rewards in heaven. We can answer by thinking of the men and women whom we have known and worked with, and on whose social judgment we have relied—doctors, perhaps, or administrators or teachers or business-men or inconspicuous members of elected bodies and voluntary committees. Most of the best of them now work without hope of heaven or fear of hell or trust either in overruling providence or inevitable evolution.

The generations which will come after them are as real to them as the generation in which they live, and they take sincerity of feeling as much for granted as veracity of speech or consistency of reasoning. They never think of themselves as creating a pattern of human motive. But that pattern is being created and may become conscious of itself.

Mankind has still much to learn, more perhaps than we can now imagine, from the patient observation of scientists and the obstinate questioning of metaphysicians. But it is not too soon for us in our new world of mechanical civilization to take up once more the old search for wisdom.

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